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CITY OF ABERDEEN.

REPORT

BY THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1934

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CITY OF ABERDEEN

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PREFACE.

In accordance with the requirements of the Department of Health for Scotland, there is herewith submitted the Annual Report on the Health and Sanitary Conditions in the City of Aberdeen for the year ended 31st December, 1934.

The population of Aberdeen in 1934, as estimated by the Registrar-General, and including the inmates of Woodend Municipal Hospital and Kingseat Mental Hospital, was 173,215. The statistical rates throughout the Report are based on this figure.

The death-rate in Scotland in 1934 was 12.9 per thousand of population - the lowest ever recorded. In Aberdeen, the death-rate was 12.5 per thousand, as compared with 13.0 in 1933 and 13.4 in 1932.

The birth-rate was 17.7 in 1934; this was 0.1 higher than that of the previous year. The Scottish birth-rate was 18.0

In 1934, the infant mortality rate throughout Scotland was 78 per thousand births. Amongst the principal towns in Scotland, Aberdeen appeared third on the list, with a rate of 77. Edinburgh was first with a rate of 62 and Dundee second with 74. So far as Aberdeen is concerned, the rate of 77 is the lowest yet recorded. In 1933, Aberdeen was second on the list, the infant mortality rate then being 79.

Acute infectious diseases occupy a low position as causes of death. An epidemic of scarlet fever, of mild variety, made its appearance in Aberdeen in August 1933. The total number of cases notified in 1934 was 2,122, as compared with 1,479 in 1933, and an average of 613 in the 1924-1933 decennium. In 1934, the case mortality - the number of deaths per hundred cases - was 0.8, and that rate, fortunately low, was the same as that which prevailed in the preceding decennium. In 1933, the case mortality was 0.4 - an exceptionally low figure.

In order to relieve the congestion of scarlet fever cases in the City Hospital, the Town Council temporarily rented Summerfield Hospital which then belonged to the County Council. Convalescent and mild cases were admitted to Summerfield Hospital from the City Hospital.

As often happens, diphtheria appeared in epidemic form immediately after an acute epidemic of scarlet fever. Towards the end of 1933, diphtheria became epidemic. In 1934, 719 cases were notified and 25 deaths occurred. This is the highest number of cases recorded since 1921 when the number notified was 733 and the deaths numbered 36. In 1934, the case mortality was 3.5 per cent., as compared with 4.9 in 1921. Diphtheria is a dangerous disease and intensive active immunisation is justifiable and will again be undertaken in the City. It is worthy of note that in Scotland, in 1934, the highest number of cases of diphtheria was notified since this disease became compulsorily notifiable in 1897.

The scope of the Regional Medical Services has been elaborated in previous Annual Reports, but, in 1934, two outstanding features were the amalgamation of the City and County of Aberdeen in respect of bacteriological and veterinary services. An efficient bacteriological service, available to a community, is the backbone of preventive medicine. Representatives of the Town and County Councils met and it was decided that, from 16th May, 1934, the bacteriological services of both areas would be carried out at the City Laboratory under Dr. Smith as Regional Bacteriologist.

So also the Veterinary Services of the City and County of Aberdeen have been co-ordinated, and the work is performed for both areas by a Chief Veterinary Officer, with two assistants. In this connection, there appears in the Annual Report of the Department of Health for Scotland for 1934 the following comment:-

> "Aberdeen County and Burgh have now in operation a combined scheme for their veterinary services under a chief inspector and two assistants resident in centres convenient for the administration of the whole area. The Department commend this example of co-operation to the consideration of authorities in other areas."

A statement regarding the Mental Health Services, as administered at Kingseat Mental Hospital, Newmachar, is incorporated in this Report.

A Report on the School Medical Services is issued separately as the school year ends on 31st July and is not, therefore, coincident with the year as dealt with in this general Report.

HARRY J. RAE

Medical Officer of Health.

June, 1935.

CITY OF ABERDEEN.

REPORT BY THE MEDICAL OFFICER OF HEALTH
For the Year 1934.

CHAPTER I.

SPECIAL INVESTIGATIONS UNDERTAKEN DURING THE YEAR.

I. Weil's Disease (Leptospirosis)

A joint clinical and bacteriological study of nineteen cases of Infective Jaundice, occurring chiefly amongst fishworkers, was published by Professor L.S.P. Davidson, Dr. John Smith, Dr. R.M. Campbell and Dr. H.J. Rae.

The occurrence in Minorca of an epidemic of jaundice was first described by Cleghorn in 1745. The publication by Weil in 1886 of an account of four cases of infectious jaundice led to the recognition of a symptom-complex of fever, jaundice, enlargement of the liver and spleen, the occurrence of haemorrhages, and, occasionally, febrile relapses under the designation of Weil's disease. Following the discovery of the L. icterohaemorrhagiae in the blood of a patient suffering from the Japanese form of the disease, and the proof of its specificity by Inada and Ido in 1915, the name "spirochaetosis icterohaemorrhagica" was suggested as a substitute for the many titles applied to this disease. Stokes and Ryle in 1916 obtained bacteriological evidence of the existence of the disease among the British soldiers in Flanders; similar outbreaks were reported and confirmed among the German, French and Italian troops on the Western Front.

The occurrence of spirochaetosis in the form of an acute febrile illness, without jaundice, was recognised. In consequence it has been the practice of European workers to revert to the non-descriptive title of "Weil's disease", in preference to its synonyms laying emphasis on jaundice. Interest in the disease has increased in recent years in Holland, where in the past decade 452 cases have been observed, with a mortality of 10.2 per cent. Infection occurs by bathing and by accidental or suicidal immersion in the canals; a higher occupational incidence is reported among bargemen and workers in abattoirs and other rat-infested premises.

Leptospiral Infection in Britain.

Potential sources of infection in Britain are known to exist, the carrier rate in rats varying from four out of 101 rats in London to thirty out of 100 in different parts of England. Buchanan found sixty-one infected rats out of a total of 166 from various parts of Scotland. In the light of these figures the reports of leptospiral infection in man are surprisingly few, and their authenticity is undoubted only in three outbreaks. Manson-Bahr in 1922 described a case in a seaman four days after immersion in the Thames, the L. icterohaemorrhagiae being isolated from the blood. An outbreak of epidemic jaundice in 1923, among miners in certain wet pits in East Lothian, was described by Gulland and Buchanan, the diagnosis in eighteen cases being based on the clinical features. Investigations by Buchanan resulted in proof of the leptospiral origin of the East Lothian epidemic, a guinea-pig inoculated from the urine of a patient dying with typical post-mortem findings and showing the L. icterohaemorrhagiae in its tissues. A total of thirty-one cases in all was later reported on the combined clinical and bacteriological findings. The existence of the disease in Scotland among members of the community other than coal-miners, particularly those working in rat-infested areas - for example, near refuse dumps, piggeries, and breweries - was thus proved.

In May of this year the clinical diagnosis of a fatal case of Weil's disease, in a temporary sewer worker in London, was established by the recovery of the L. icterohaemorrhagiae from guinea-pigs inoculated with blood on the seventh day of the disease, and by the presence of a strongly positive sero-reaction with the typical "Weil" strain on the tenth day. Consequent inquiry by Hamilton Fairley, under whose charge the case had been, showed, on clinical and serological examination of ten persons, that a hitherto unrecognised and endemic focus of Weil's disease had existed for twelve and a half years among sewer workers in London. Other reports of isolated cases or localised outbreaks have been communicated on the clinical features. In some cases spirochaetes were stated to be present in the urine, but bacteriological proof of their identity with L. icterohaemorrhagiae was not produced. For a full discussion of the relevant literature the reader is referred to the papers by Hindle and by Taylor and Goyle.

Present Investigation.

Workers in rat-infested premises, both in this country and in Holland, have been recognised as specially liable to the disease. The association of leptospiral infection with water workers in Holland and wetness of the mines in East Lothian is admitted. The object of the present paper, however, is to describe a current outbreak of Weil's disease among persons employed in the handling and cleaning of fish, and to indicate the circumstances rendering them liable to infection. So far as the present authors are aware, the peculiar incidence of the disease in this industrial group has not been reported previously.

In June, 1934, two patients (Cases 3 and 5 in Table I), suffering from an acute febrile disease associated with jaundice and nephritis, were admitted to the wards in the Aberdeen Royal Infirmary under the charge of the professor of medicine. A diagnosis of Weil's disease was made on the clinical features. Inoculation of the blood and urine into guinea-pigs gave negative results. (An explanation of these failures is discussed later). Sera collected on the twenty-first and thirty-second days of the disease, respectively, were dispatched to Amsterdam, and Professor Schüffner, who generously agreed to test sera in these and other suspected cases, reported positive agglutination reactions in titres of 1 in 30,000 with the classical "Weil" strain. As both these patients were fish workers inquiries were instituted; these showed clearly that several additional cases had occurred in this occupational group over a period beginning in April of this year. Infective jaundice being a notifiable disease in Scotland since February, 1924, it was decided to request the medical officer of health to circularise the medical practitioners of Aberdeen and its regional area for information as to "any cases of infectious jaundice which they may at present have, or in the past have had, under their care", and to investigate the working conditions of the fish trade.

As a result of the better recognition of the clinical manifestations of Weil's disease, other than icterus, during the past decade in Holland, the proportion of mild cases unassociated with jaundice has risen from 13 to 60 per cent. of the total. Since information was requested from the Aberdeen practitioners about cases of infectious jaundice, we claim that a reliable index of the prevalence of leptospiral infection was not produced as a result of this inquiry.

We propose to divide the cases reported in this paper into two groups. Group I consists of a series of fifteen cases investigated between June and October, 1934, in which the diagnosis has been confirmed by bacteriological or serological methods. Points of particular interest in Group I are given in Table I. Group II comprises a series of four cases of great severity, diagnosed as Weil's disease from their clinical manifestations, but lacking bacteriological or serological confirmation. The value of serological tests is of recent establishment, and accordingly had not been undertaken in these cases.

Group I.

In order to save space individual case histories are omitted, and the general picture of the disease as seen in these cases is presented and compared with the clinical features reported elsewhere. Of the fifteen cases in Table I, Cases 14 and 15 occurred in Edinburgh, the remaining thirteen in Aberdeen, and all have occurred during the present year. Twelve of the thirteen patients were connected with the fish trade. Eleven were employed in cleaning, filleting, curing or packing fish, and one in the transport of fish from the yards to the railway station. Of the remaining cases one was a farm labourer working in fields and ditches, another was a labourer at the zoological gardens, while a third was a labourer engaged in laying water-mains. Seven out of the twelve cases in fish workers occurred in April, May and June, and the remaining five in September and October. Males were affected in eight, females in seven instances. The ages varied from 14 to 67 years, ten being under 25. Juvenile and adolescent labour, however, is preponderant in the fishyards. The incubation period is stated to range between the limits of four and nineteen days, with an average of 10.3 days. In view of the continuous exposure to sources of infection it was not possible to determine the incubation period in any of our cases.

Onset and Early Symptoms.

The onset can be described as sudden in fourteen out of the fifteen cases, the illness developing acutely within twenty-four hours or less. All of these patients were confined to bed from the onset. Thirteen were admitted to hospital at periods varying from the second to the fourteenth day of the disease. Several of the following symptoms were present in the first four days of the illness: severe headache, weakness and marked prostration; muscular pains; shivering; anorexia, nausea, vomiting, and constipation; sore throat; abdominal pain; epistaxis and insomnia. Diarrhoea occurred at the onset in one case, and was followed by marked constipation. Meningeal symptoms with acute pain on moving the neck led in one case to suspicions of a cerebral condition. Abdominal tenderness was generalised or localised to the epigastrium, right hypochondrium, or right iliac region. The tongue was coated, moist in the early stages, and dry later. Muscular pains and a feeling of prostration were present in practically every case. Cases 9 and 10 were exceptional in this respect, although they had been diagnosed as influenza until the sero-reactions revealed their true nature. In the severe cases muscular pain was a very prominent symptom, affecting the back, loins, shoulder-girdle, neck, thighs, or calves, and lasting as long as seven days; acute tenderness of the muscles on pressure was associated. Joint pains were present in the most severe surviving case.

Stress is laid by authors in the East Indies and Holland on the flushed conjunctivae ("red eyes") due to dilatation of the episcleral capillaries. "Red eyes" was not noted in any of our cases, but its absence may be explained on the grounds that the patients were admitted to hospital on the average five days after the onset of acute symptoms. Herpes labialis was seen only in one case and was not haemorrhagic. Haemorrhage from some situation was present in nine out of thirteen cases. Epistaxes were the most frequent, occurring in five instances. Nose-bleeding was slight in degree, occurred in the first four days, and was revealed only on direct inquiry. Severe haemorrhages of multiple origin are recorded in the two fatal cases of this group.

Fever was present in ten of the patients. Case 12 was collapsed, with a subnormal temperature, while Case 13 was admitted late in the disease. The temperature varied in its maximum height from 99° to 104° F., according as admission was late or early. The highest figures were recorded on the third, fourth and fifth days. The duration of the primary fever was six to nine days. A secondary rise in temperature in six cases followed from four to eleven days after the termination of/

No.	Sex and Age	Occupation	Onset	Muscular Pains	Haemorrhages	Jaundice	Nephritis	Duration (Days)
1	Male 17	Fish worker	Sudden	++	Haemoptysis; occult blood in stools	++	Albumin, casts	58
2	Female 18	"	"	++	Epistaxis	+++ 70	Albumin, pus cells	77
3	Female 16	"	"	++	Epistaxis. ? Haematemesis	++ 33	Albumin, casts, pus cells. 58	87
4	Male 18	"	"	+	None.	++ 50	Albumin, casts, pus cells	(16)
5	Male 40	"	"	+++	Epistaxis; occult blood in stools	+++ 60	Albumin, casts, pus cells. 152	(57)
6	Female 16	"	"	++	Epistaxis	None	Albumin, casts, pus cells, red blood cells. 52	(36)
7	Male 22	"	"	++	Occult blood in stools	++ 35	Albumin, casts, pus cells, red blood cells. 143	(42)
8	Female 14	"	"	++	? Haematemesis	++ 35	Albumin, casts, pus cells, red cells. 43	(43)
9	Female 18	"	"	None	None	None	None	14
10	Female 21	.	"	+	None	None	None	(25)
11	Female 16	"	"	+	None	+++ 60	Albumin	20+
12	Male 63	Fish carter		Not noted	Epistaxis; petechiae	+++	Anuria	9
13	Male 39	Labourer; pipe layer	Gradual	Not noted	Not noted	None	Albumin, casts, pus cells, red cells. 38	(56)
14	Male 39	"Zoo" labourer	Sudden	Not noted	Not noted	+ 28	Albumin, casts, blood. 94	112
15	Male 67	Farm labourer	"	++	Petechiae; haematemesis; melaena	+++ 52	Albumin, casts, blood	14

+ = Slight. ++ = Moderate. +++ = Severe. Figures in Columns 7 and 8 apply to icterus index in Murphy units and blood urea in mg. per 100 c.cm. respectively. Figures in Column 9 indicate total days of incapacity from work; where convalescent period is not included, figures are enclosed in parenthesis. Death occurred in Cases 12 and 15; the remainder recovered.

of the primary fever, and lasted from five to twenty days; a maximum figure exceeding 100° was reached in four of these. Splenic and glandular enlargement was absent in all cases, but there was liver enlargement in one. A red, measly rash was seen on the legs of one patient on the tenth day of the disease, and disappeared within two days. Jaundice was detected in eleven out of the fifteen cases, being first seen on the fourth to the tenth day; in six of the cases it was present by the sixth day. Fluctuations in the jaundice were not observed. Save in two cases where jaundice persisted until the seventh week, icterus had disappeared by the third week.

Urinary Features.

These seem to be worthy of emphasis. Albumin and casts were found in nine cases, albumin alone in three, and red blood cells in six. The urinary output was not markedly diminished, except in one fatal case with anuria. There was no associated puffiness of the face or other oedema. The association of jaundice and nephritis was found of great diagnostic value. Whether the azotaemia of Weil's disease is wholly dependent on impairment of renal function or in part at least on increased urea production is an undetermined problem. Figures for blood urea values are available only in four cases before the tenth day of the disease (Cases 3, 5, 7, and 8). Raised values are present in these instances. Case 7 is of interest in that a urea content of 66 mg. per 100 c.cm. was recorded on the third day of the illness, later rising to the high level of 143 mg. per 100 c.cm. on the tenth day. These high degrees of nitrogen retention suggest that the association of a sudden onset, high fever, muscular pains, nephritis, and raised blood urea values in the absence of oedema or hypertension might be of considerable diagnostic service in the early stages of severe cases. A secondary rise in the blood urea content occurred during the period of secondary fever in two cases.

Course of the Disease.

While the distressing subjective features of the onset, such as headache and muscular pains, disappeared within a week, and jaundice resolved on the average by the twenty-first day, the urinary findings took considerably longer to return to normal. Even in mild cases, a trace of albumin was present six weeks after the onset, while in the severe cases albumin and casts in the centrifuged deposit were detected in the eighth week of the disease. In cases 3 and 5 blood urea values fell to normal upper limits after six weeks. In six cases loss of hair, beginning in the third week of the disease, was marked, and led to a state of partial baldness. It has been impossible to estimate the total period of disability except by the duration of stay in hospital. Convalescence thereafter was prolonged, since many of the patients felt unable to work owing to general weakness and tiredness, and complained of vague muscular pains for several weeks after discharge from hospital. There were two fatal cases in this group, death occurring on the ninth and fourteenth days.

Group II.

Group II consists of the series of four fatal cases reported on clinical grounds. They extend over a period from 1929 to 1934. The several occupations of the patients were restaurateur, farm worker, market gardener, and fish carter. Three were males and one a female, and their ages were 64, 34, 34 and 24 respectively. A typical history of one of these cases is as follows. The patient was taken suddenly ill with severe muscular pains followed by sickness, vomiting, and haemoptysis, succeeded by jaundice on the fourth day. On the sixth day he was admitted to hospital moribund, when the findings and subsequent course were: severe jaundice, albuminuria slight, hyaline granular and epithelial casts in Urine, blood urea 349 mg. per 100 c.cm., gradually/

gradually increasing jaundice, repeated haemorrhages; finally, anuria, coma, and death on the ninth day. It is to be noted that one of the patients in these fatal cases was a fish carter. In another a history was obtained of fatal jaundice in two younger members of the family, aged 7 and 17 years respectively. Since the premises were rat-infested, it was suspected that all three deaths had a common origin.

Bacteriological Investigations.

It has been the experience of Dutch and other workers that L. icterohaemorrhagiae can best be recovered from human cases of infection by intraperitoneal inoculation of blood, urine, and tissue emulsions into young guinea-pigs rather than by direct cultural methods. In the present series blood samples from five cases and ten specimens of urine from six cases were inoculated into guinea-pigs, 1/2 to 1 c.cm. of blood and 5 c.cm. of urine being used. The results of these tests have, however, been vitiated by the fact that for the most part the cases were recognised a considerable period after the onset of the illness. To recover the organism from the blood it is necessary to obtain a specimen in the early stage of the disease - one to six days after the onset, while the patient is yet febrile. So with the urine the most favourable time for the demonstration of the organism is the period fourteen to twenty-one days after the onset. A most important point in connection with the examination of urinary specimens is that guinea-pigs must be inoculated within one hour, otherwise the leptospira will have died off.

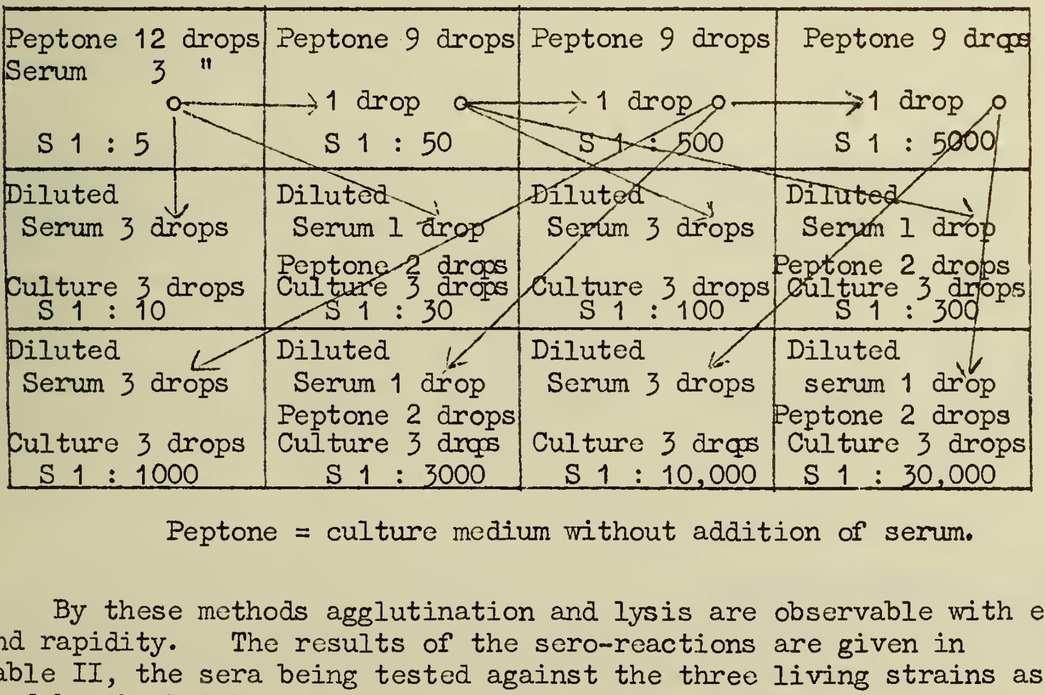
So far the organism has not been recovered from any blood specimens, but has been recovered from the urine of Case 8 and from emulsions of the tissues of one fatal case (12). The urine which contained the leptospira was obtained on the sixteenth day of the patient's illness, and a further specimen, obtained on the twenty-ninth day, failed to kill the guinea-pigs. It should also be pointed out that it is not necessary to wait for the death of the animals in order to obtain positive results. Two days after inoculation the febrile reaction in the infected guinea-pig begins, and if a small quantity of fluid is withdrawn from the peritoneum from day to day by puncturing the abdominal wall with a sharp-pointed glass pipette, sufficient material will be obtained for examination by dark-ground illumination methods. If the peritoneal fluid shows a positive result blood may be obtained by heart puncture and cultured, several drops being added to four or five tubes of medium.

Cultural Methods.

The culture medium used by the Dutch workers consists of the following: tap-water, 1,500 c.cm.; Witte's peptone, 0.15 gram; Ringer's solution, 300 c.cm.; and Sorensen's solution pH 7.2. The final reaction of this peptone medium should be between pH 6.8 and pH 7.2. Three c.cm. of the medium is placed in a small tube and sterilised. For use 0.3 c.cm. of fresh rabbit serum is added; the tubes are then heated at 56°C. for thirty minutes and incubated at 37°C. overnight. Certain rabbit sera seem to be somewhat inimical to the growth of leptospira, and, furthermore, guinea-pig serum filtered through an L5 Chamberland candle can be employed with success. Samples of horse serum have given less favourable results than rabbit or guinea-pig sera. The patient's blood can be cultured in this medium, and so also the urine if obtained free from other organisms. A point of practical interest is that since the leptospira may remain alive for days in clotted blood from human cases, the blood clot can be broken up and inoculated into guinea-pigs. To culture the leptospira the tubes are placed in an incubator at 32°C. and examined after three or four to seven days.

Sero-Reactions.

It is obvious that since only some 40 per cent. of cases show signs of jaundice, and since many cases recover after a febrile illness lasting four to seven days, it would be difficult to diagnose the disease on a clinical basis. If, however, the occupation of the patient is kept in mind, some indication of the possibility of a leptospiral infection should present itself. Schüffner and Mochtar showed that when the serum from human infections obtained after the seventh day of the illness was tested in various dilutions against an emulsion of living L. icterohaemorrhagiae, agglutination was obtained in the lower and lysis in the higher dilutions of the serum. This essential test is performed by setting up a series of dilutions of the serum in the cells of a sterile porcelain plate (painter's palette), or in small sterile test tubes 1 inch by half an inch. Figure 1 gives the details of Schüffner's method by which dilutions of the serum ranging from 1 in 5 to 1 in 15,000 can be obtained rapidly, and when three drops of the leptospiral emulsion (four days' growth at 32°C., and up to three days' growth at room temperature) are added to each the final serum dilutions range from 1 in 10 to 1 in 30,000. The serum dilutions are made with a sterile pipette. The tests are then incubated at 32 C. for three hours. The results are determined by examining a drop (obtained with a platinum loop from each dilution of the serum) under the microscope by the dark-ground illumination method. For this purpose a most suitable optical equipment has been found to be the Leitz "dry" dark-ground condenser D 0.80 in conjunction with the achromatic objectives 3 (2/3 inch) and 6L (1/6 inch), the source of illumination being a 100 c.p. pointolite lamp. A x 20 ocular can be used in conjunction with the 2/3 inch objective, and an x 8 to x 10 ocular with the 1/6 inch objective. A drop of the serum and living leptospiral emulsion is placed on a clean slide (0.9 mm. to 1.1 mm. in thickness), and examined first with the 2/3 inch objective and later with the 1/6 inch objective, no counterslip being interposed between the preparation and the objective.



Peptone 12 drops Serum 3 " S 1 : 5	Peptone 9 drops 1 drop S 1 : 50	Peptone 9 drops 1 drop S 1 : 500	Peptone 9 drops 1 drop S 1 : 5000
Diluted Serum 3 drops Culture 3 drops S 1 : 10	Diluted Serum 1 drop Peptone 2 drops Culture 3 drops S 1 : 30	Diluted Serum 3 drops Culture 3 drops S 1 : 100	Diluted Serum 1 drop Peptone 2 drops Culture 3 drops S 1 : 300
Diluted Serum 3 drops Culture 3 drops S 1 : 1000	Diluted Serum 1 drop Peptone 2 drops Culture 3 drops S 1 : 3000	Diluted Serum 3 drops Culture 3 drops S 1 : 10,000	Diluted serum 1 drop Peptone 2 drops Culture 3 drops S 1 : 30,000

Peptone = culture medium without addition of serum.

By these methods agglutination and lysis are observable with ease and rapidity. The results of the sero-reactions are given in Table II, the sera being tested against the three living strains as used by the Dutch workers. It will be observed that the end titres of the reactions against L. icterohaemorrhagiae Weil are extremely high,/

TABLE II

Case No.	Day after On-set of Illness on which Blood was taken.	Titre of Sero-reactions(aggn. and lysis) against:		
		L. ictero-haemorrhagiae Weil.	L. canicola.	L. ictero-haemorrhagiae Indian Strain.
1	116th	1,000	300	30
2	65th	1,000	300	0
3	50th	30,000	1,000	300
4	64th	3,000	300	100
5	25th	30,000	300	100
6	29th	30,000	300	100
7	21st	10,000	300	100
8	9th	300	100	0
9	28th	3,000	100	30
10	8th	1,000	100	0
11	8th	1,000	0	0
12	8th	1,000	100	30
13	42nd	1,000	100	0
14	327th	300	0	0
15	10th	1,000	100	0

high, the agglutination of the leptospira occurring in dilutions ranging from 1 in 10 to 1 in 300 or 1 in 1,000, and lysis occurring from 1 in 300 to 1 in 30,000, a typical result being:

	Serum Dilutions :							
	1 in 10	1 in 30	1 in 100	1 in 300	1 in 1,000	1 in 3,000	1 in 10,000	1 in 30,000
Agglutination ..	++++	++++	++++	++	–	–	–	–
Lysis				++	++++	++++	++	–

The reactions against L. canicola and L. icterohaemorrhagiae (Indian Strain) are believed to be of the group type, L. canicola and L. icterohaemorrhagiae (Indian Strain) being different serologically. If, however, formalised killed cultures are employed, then agglutination only is observable, the lytic action being inhibited. In one case, a fatal one, the serum failed to give any reaction on the sixth day of the illness, but when obtained two days later reacted to a titre of 1 in 1,000. The agglutinating and lytic action of the serum can be employed for the diagnosis of a recent infection, or an infection which has occurred many years previously.

Source of Infections.

The industry which has grown up around the preparation of fish for human consumption cannot be said to be conducted entirely on up-to-date, hygienic principles. The patients in the present series have been employed, for the most part, in the handling of white fish. The girls are engaged as filleters and cleaners, and the men in the general handling and distribution of the raw material and offal. In this city some 250 different establishments, each employing perhaps five to six girls and two to three men, are constantly at work. These small businesses account for about 60 per cent. of the total, the remaining 40 per cent. being in the hands of larger firms, employing forty to one hundred or more workers.

At the outset it may be said that for economic reasons the smaller businesses are less able to employ hygienic methods than the larger concerns, though this does not always follow. A visit to many of these establishments shows that the premises and equipment are often unsatisfactory. The fish are taken from the market in boxes; they are dumped in a corrugated iron shed in which at a wooden table five or six girls proceed to fillet and prepare the fish for sale to the retailer. The water for washing is obtained from the municipal supply, which is entirely satisfactory, but often, instead of being withdrawn from the tap, it is drawn from a tub placed underneath the tap. The latter source, the table and the floor all rapidly become covered with slime and offal. In the evening the bulk of the dirt and offal is collected into barrels, which are not removed until the following morning. As the premises are often rudely constructed there is little protection against rats, which infest the whole area in which the business is conducted.

Some years ago one of us showed that 24 per cent. of rats, young and old, in the city harboured L. icterohaemorrhagiae. Recently, in July, 1934, when the disease was recognised, a visit was paid to some of the premises where the patients had been working. Six samples of water were obtained - four from floor washings and two from the tubs. To demonstrate the leptospira the technique of Applemann was employed. Young guinea-pigs were chosen, and the hair was depilated from the abdominal skin. The water samples to be examined were placed in buckets to a depth of two inches or so, and brought to a temperature of 32°C. The abdominal skin of the guinea-pig was then scarified, and two animals were placed in each bucket and allowed to remain there for one hour. The animals were then removed and replaced in their cages. In two instances guinea-pigs died on the tenth and eleventh day respectively after immersion in the water. Both animals showed the typical features of infection due to L. icterohaemorrhagiae, the organism being easily demonstrable by microscopical examination in preparations from the liver, and the disease was repeatedly reproduced in other animals by inoculation with liver emulsions.

More recently (October) six more samples were similarly examined, with one positive result. The sample of water that produced this was obtained from the floor of the premises in which two cases of Weil's disease had occurred during the past summer. Probably the incidence and prevalence of L. icterohaemorrhagiae may be to some extent seasonal. Obviously, therefore, the opportunities for infection and the conditions for the survival and perhaps multiplication of L. icterohaemorrhagiae after being deposited by the rats are present. Persons employed in the trade have the skin on their hands frequently broken by their knives, and presumably infection occurs through the exposed flesh surfaces, or it may occur, as in Holland, by infection through the nasal mucosa and upper respiratory tract.

Discussion.

In a subsequent paper it is proposed to deal with certain aspects concerning/

concerning the aetiology, prevention, and treatment of Weil's disease. A short discussion regarding the importance of early diagnosis appears, however, to be desirable. Favourable results have been reported following the administration of specific antiserum in the early stages of the disease, and also in cases with commencing icterus. The best results, however, are obtained when serum is given within the first three days of the onset, Since jaundice does not appear regularly before the fifth day the clinical diagnosis depends on the recognition of such symptoms as abrupt febrile onset, muscular pain, "red eyes", and marked prostration. None of these symptoms, however, can be held to be specific for Weil's disease, since they may occur in many acute infections. This is particularly true of influenza and acute tonsillitis. A mistaken diagnosis of influenza had been made in several of our cases, and in none of the patients in Group I was Weil's disease suspected prior to our investigation. While it is true that the occurrence of a sudden acute fever in a sewer worker might suggest the possibility of leptspirosis, even in the pre-icteric stage, the problem is entirely different in workers connected with fish-curing and cleaning. For every case of Weil's disease occurring among the thousands of fish workers in Aberdeen there must be hundreds of cases of acute febrile illness of other origin with symptoms similar to those mentioned above. Weil's disease in the early stages might be suspected on the following additional grounds: a leucocytosis with a shift to the left in the polymorph series, latent icterus with a direct or biphasic van den Bergh reaction, acute nephritis unassociated with oedema or hypertension but indicated by slight albuminuria, the presence of granular and cell casts in the urine, and a raised urea or non-protein-nitrogen content in the blood. The tests required to obtain the above data, as well as guinea-pig inoculation with blood, would be impossible in view of the numbers concerned; hence it appears to us that the clinical diagnosis in the early stage, before jaundice occurs, presents almost insuperable difficulties to the practitioner in Aberdeen. Accordingly, the full benefits of specific serum treatment are unlikely to be realised.

In view of the practical difficulties connected with guinea-pig inoculation of blood and urine, the sero-reaction will remain the chief method by which the diagnosis will finally be confirmed. Since a positive sero-reaction does not occur before the seventh day of the disease the information obtained is of little value in regard to treatment. It is reassuring to know that Professor Schüffner's investigations indicate that this reaction in Weil's disease is as specific as the Widal reaction in enteric fever. Our own experience is in keeping with this, since sera from 180 cases other than those of Weil's disease have been examined, and in no instance has the reaction been obtained even in a dilution of 1 in 10.

Conclusions.

1. Nineteen cases of Weil's disease are reported, in fifteen of which the clinical diagnosis was confirmed by bacteriological or serological tests.

2. Thirteen of the patients were employed in the handling and cleaning of fish.

3. These findings show for the first time that workers among fish must be included in the occupational groups especially liable to Weil's disease.

II. The Incidence of Bovine Type of Tubercle Bacillus in Pulmonary Tuberculosis.

Dr. John Smith, Regional Bacteriologist, has been carrying out an interesting investigation into the incidence of the bovine type of tubercle bacillus in pulmonary tuberculosis and a note on the results of his findings to date is herewith appended.

In recent years there has been shown an increasing number of reports on pulmonary tuberculosis due to the bovine type of the bacillus. It was at one time estimated that only 1 per cent. of such infections was due to this variety of the tubercle bacillus. Examination of specimens of sputum from 100 cases of pulmonary tuberculosis from the County area has shown no less than 14 per cent. of the bovine type. The examination of a similar number of specimens from City cases has not yet been completed, but, so far, some 6 bovine infections have been found in a series of 65 cases.

The incidence of bovine infections is apparently relatively greater in this area than in England. It is difficult to give an adequate explanation for this occurrence, as the incidence of tubercle bacilli in milk does not appear to be greater here than elsewhere. Also there is no evidence that the amount of raw milk consumed per head is greater than in other parts of the country. In the present series of bovine type infections, the patients frequently give a history of previous adenitis in youth. The clinical history of these cases does not suggest the possibility of human transmission, but simply of direct infection through raw milk.

III. The Value of Immunisation against Diphtheria by Alum Precipitated Toxoid.

Dr. Douglas Bell, Senior Resident Medical Officer at the Aberdeen City Hospital, has been conducting an investigation into the value of "one-shot" immunisation against Diphtheria by Alum Precipitated Toxoid. In view of the interest in the use of this preparation for the prophylaxis of Diphtheria, the following results obtained by Dr. Bell are worthy of attention.

A series of 257 Schick positive individuals have been immunised with a single dose of this new immunising agent. It has not been possible to retest all, but 130 returned for this purpose. The retests were carried out, on an average, some three months after the injection of the toxoid. Materials from three firms preparing biological materials have been used.

The following are the results in brief of the retests on these 130 individuals:-

Preparation	-ve or +ve	Adults. Over 14 years.	Children Under 14 years.	Total.
A 1	Schick -ve	11	34	45
	Schick +ve	1	2	3
A 2	Schick -ve	13	14	27
	Schick +ve	1	3	4
B	Schick -ve	10	20	30
	Schick +ve	3	0	3
C	Schick -ve	0	18	18
	Schick +ve	0	0	0

The numbers are obviously too few to discriminate with regard to the superior efficacy of any particular preparation.

Expressed in percentages over the whole series, the findings are as follows:-

Adults(39)Schick +ve 5 = 13% Children(91)Schick +ve 5 = 5.5%
Schick -ve 34 = 87% Schick -ve 86 =94.5%

Totals: Schick +ve 10 = 7.7%
Schick -ve 120 = 92.3%

The/

The results obtained are, therefore, entirely satisfactory, and from the point of view of simplifying immunisation the introduction of alum precipitated toxoid obviously marks a great advance.

At first the Maloney Test was used on all individuals, but as Maloney positive reactors were not obtained in children under 14 years the Test was given up for this age group. On persons over 14 years of age quite a umber of Maloney positives occurred, and these, when also Schick positive, were immunised with some preparation other than alum precipitated toxoid. No serious reactions have been encountered in the present series, and when the preliminary tests are carried out as indicated above, trouble need not be anticipated.

IV. Radiological Examination as a Possible Cause of Gene Mutation.

Mr. H.D. Griffith, in collaboration with Dr. Zimmer, Berlin, recently carried out, at Woodend Hospital, an investigation on this subject. A paper on this investigation has been published, and a summary of it is given here.

Recent investigation of the action of X-rays and Y rays on the germ plasm has shown that genetic changes may be induced in plants, insects and mammals by comparatively small dosage, and that within very wide limits, a large intensity acting for a small time has identically the same effect as a smaller intensity acting for a proportionally longer time. In this respect, the genetic consequences of irradiation are in striking contrast to the effects usually considered in reference to protection of patients and workers from radiological dangers, and the older conception of a "tolerance dose" requires reconsideration. In view of the great sensitivity of the reproductive tissues, this reconsideration should take into account not only X-ray therapy but radiography also. Although complete data as to dosage conditions in X-ray therapy are available, information as to the quantity of radiation received by the subject in radiography is very inadequate. It is clearly important to find out how much radiation is received by the subject during ordinary routine radiological examination, and how this radiation is distributed in depth.

Measurements made with Sievert Condenser Chambers during routine radiological examination of patients showed that the intra-vaginal dosage amounted to 0.45 r units per film during radiography of the pelvis and to 1.95 r per minute of screening. The greatest total intra-vaginal dose received by any one patient of the series studied amounted to 12.5 r, several films and screenings of this person having been made during a barium meal examination of the intestinal tract.

In order to evaluate the significance of these measurements, it is necessary to compare the dosage received by the ovaries with the dosage which they receive from natural sources of radiation (cosmic radiation, etc.) during the life-time of the subject. This procedure is justified by the observed fact that a time factor of unity has been found over a very large range of exposure times (proportion 1 to 1000) in studies of radiological mutations in Drosophila: and by the high probability that chromosome change, once induced, is subject to no known process of restitution. Working on this basis, the natural ionisation taken as equivalent to 30 ions per second per cubic centimetre, is found to amount to 1 "r" unit in 22 years; measurements described above show a mean vaginal dosage of 0.45 r per film in radiography of the abdomen and of 3.0 r in screening examination of average duration, and point to the conclusion that one abdominal radiological examination must frequently act as a cause of chromosome changes in an individual as extensive as those due to exposure to natural radiation throughout a whole lifetime; in the worst case studied (12.5 r), four times as extensive. Scattered radiation to the pelvis during examination of parts of the body other than the pelvis is negligible in amount.

In computing the final significance of radiological examination as a factor in inducing genetic change, allowance must be made for (i) the fact that only a fraction of the population is subjected to radiological examination, (ii) the age incidence of examination, (iii) the relative amounts of "spontaneous" mutation which should be ascribed to natural radiation and to other causes.

The statistical aspects of these problems are now under consideration.

CHAPTER II.

INFECTIOUS DISEASES.

Table I. on page 18 gives the death-rate from each of the principal infectious diseases since the commencement of registration. In Table II. on page 19 the number of cases and deaths from each disease is stated for the successive months of the year. Table III. on page 20 gives the morbidity and mortality from infectious disease distributed according to ages and where treated, and in Table IV. the cases and deaths are supplied for each of the years 1924 to 1934.

DISEASES WITH A SPECIFIC PROPHYLAXIS.

Small-pox.

No cases of small-pox occurred during 1934.

Vaccinia.

The passing of the Vaccination (Scotland) Act, 1907, permitted exemption from vaccination of those children whose parents declared formally that they had conscientious objection to vaccination. Table V. on page 22 shows the percentage of the total surviving children at the end of the calendar year following the year of birth who have remained unvaccinated in each year from 1907 to 1933. In 1933, the proportion of children thus escaping vaccination was 11.7 per cent., as against 12.7 in 1932.

Scarlet Fever.

In 1934, 2,122 cases were notified, as compared with 1,479 cases in 1933, and an average of 613 in the 1924-1933 decennium. The case-mortality in 1934 was 0.8 per cent. being the same as the average rate in the preceding decennium. In 1933, it was 0.4.

The number of cases removed to hospital in 1934 was 1,432 or 67 per cent. of the cases. There were 11 deaths in hospital, giving a case-mortality of 0.8 per cent.

This disease appeared in epidemic form in the end of August, 1933. Apart from two months, July and August of 1934 - when there was a slight decrease in the number of cases - the epidemic continued throughout the year, and a total of 2,122 cases is the highest yet recorded in any one year.

From 1908 to 1916, scarlet fever was continuously epidemic in Aberdeen, interrupted only by a small recession in 1910. In 1915, there were 1,873 cases and 142 deaths recorded, giving a case-mortality of 7.6 per cent. The present epidemic is, therefore, mild as compared with previous epidemics.

Diphtheria.

The number of cases of this disease notified in 1934 was 719, as compared with 301 cases in 1933. The case-mortality for 1934 was 3.5 per cent., as against 3.7 per cent. in 1933. The annual average number of cases during the 1924-1933 decennium was 355, with a case-mortality of 3.9 per cent. The percentage of cases receiving hospital treatment was 98.6.

Of contacts bacteriologically examined, 1.3 per cent. of the swabbings gave a positive finding. During the preceding decennium, the percentage of positive swabbings averaged 0.6.

During the year, 94 Schick tests were carried out, with 23 positive results. A total of 149 persons were immunised at the following age-periods: 0-5, 79; 5-15, 64; and above 15 years, 6.

Typhoid and Paratyphoid Fevers.

Five cases of typhoid and 2 of paratyphoid B. fever were reported in 1934. There was no association between the cases. There were no deaths. In two cases of typhoid fever, the patients felt ill after returning from a touring holiday abroad. All the cases, with the exception of one, were treated in the City Hospital. In the preceding decennium, there was an annual average of 11 cases and 0.3 deaths.

Venereal Diseases.

A detailed analysis of venereal diseases cases which have come to the knowledge of the Health Department is given in the section of this Report dealing with the Venereal Diseases Services. During the year, there were 157 fresh City cases of syphilis, 373 of gonorrhoea, 10 of soft chancre and 114 non-specific venereal infections.

DISEASES SPREAD BY DISCHARGES FROM THE MOUTH AND NOSE.

Measles.

The number of cases of measles reported to the Health Department in 1934 was 72. There were 5 deaths, one case being complicated with tuberculous meningitis and another with scarlet fever. All the deaths occurred in the 1-5 age-period. The average yearly number of cases during the 1924-1933 decennium was 1,070, and the average case-mortality, 2.0. Of 19 cases receiving hospital treatment, 4 proved fatal.

German Measles.

There were 12 cases of this disease reported in 1934, as against an annual average of 104 in the preceding decennium. There were no deaths.

Whooping Cough.

Of this disease, 436 cases were reported, with 18 deaths, giving a case-mortality of 4.1 per cent. Of the 18 deaths, 8 occurred in children under 1 year of age, 9 in children of 1-5 years, and 1 in a child aged 7 years. The average annual number of cases during the 1924-1933 decennium was 666, with a case mortality of 4.5. Of 19 cases receiving institutional treatment, 5 died.

Influenza.

Influenza, as distinct from influenzal pneumonia, is not a compulsorily notifiable disease. Influenza, excluding influenzal pneumonia, was registered as the cause of 5 deaths in 1934, as against 39 in 1933.

Acute Primary and Influenzal Pneumonia.

There were 593 cases of primary pneumonia notified in 1934, with 95 deaths. During the preceding ten years, the average annual number of cases was 579, and the average annual number of deaths, 120. Of influenzal pneumonia, there were 8 cases with 3 deaths in 1934, as against an annual average of 51 cases and 15 deaths in the preceding decennium.

Meningococcic Meningitis.

Three cases of this disease were notified and proved fatal. Two occurred in children under school age and the third case was a male adult (a soldier), aged 17 years. There was no discoverable relationship between the cases. During the preceding ten years, the average annual number of cases was 4.4, and the average annual number of deaths, 2.8.

Acute Anterior Poliomyelitis (Infantile Paralysis).

Two cases of Infantile Paralysis were notified. One case, which proved fatal, was a male adult with a history of longstanding poliomyelitis. The other case was a child of 13 years of age.

Epidemic Encephalitis.

One case of this disease, not previously notified, proved fatal. The case - a male adult - had been receiving institutional treatment for some time.

Tuberculosis.

A detailed analysis of the cases and deaths from tuberculosis in Aberdeen is given in the section of this Report relating to Tuberculosis Services.

Chicken-pox.

This disease, by order of the Department of Health for Scotland, ceased to be compulsorily notifiable in December, 1932. During 1934, 106 cases of chicken-pox were brought to the knowledge of the Health Department.

DISEASES SPREAD BY THE EXCRETA.

Typhoid and Paratyphoid Fevers.

These diseases have already been referred to under the group of diseases for which there is a specific prevention.

Dysentery.

During 1934, there were 66 cases of dysentery notified, of which 25 received hospital treatment. There was one death, a male adult aged 72 years.

DISEASES SPREAD BY CUTANEOUS INOCULATION.

Erysipelas.

During 1934, there were 149 cases of Erysipelas reported, with 8 deaths. In the 1924-1933 decennium, the average annual number of cases was 114, and the number of deaths, 7.

Scabies.

A record of the number of cases of other inflammatory affections of the skin, including Scabies, receiving treatment at the Skin Department of the City Hospital, is given in the section of this Report dealing with Municipal Hospital Services.

DISEASES ASSOCIATED WITH CHILD-BIRTH.

Puerperal Pyrexia and Puerperal Fever.

During 1934, 113 cases of puerperal pyrexia were brought to the notice of the Department. In order to get cases of puerperal fever into hospital as soon as possible, a provisional diagnosis of puerperal pyrexia is accepted from the practitioner. Should such a case turn out, on investigation, to be puerperal fever, the diagnosis is altered accordingly.

Of these 113 cases, 22 were finally recorded as puerperal pyrexia, the cause of the rise in temperature being attributed to mastitis, pneumonia and influenza. There were 4 deaths. A total of 11 cases occurred in the practice of public institutions, with 3 deaths; 10 in the practice of private practitioners, with 1 death; and 1 in a midwife's practice. Of the 22 cases, 15 were treated in the Municipal Hospitals, 3 were retained in the public institutions where the births occurred, and 4 in their own homes.

Among the 91 cases of puerperal fever, there were 8 deaths. A total of 54 cases occurred in the practice of public institutions, with 3 deaths (including the deaths of two women ordinarily resident outwith the City); 7 cases occurred in the practice of midwives but none proved fatal; 28 in the practice of private practitioners, with 4 deaths; in 2 cases - both abortions - there was no skilled person in attendance at the time, and 1 case died later in a public institution. Of the 91 cases, 86 were treated in the Infectious Diseases Hospital, 4 were retained in the institution where the confinement took place, and the remaining case was one of the abortions above referred to. Puerperal sepsis followed abortion in 7 cases, of which 2 died.

The increased number of cases occurring this year would appear to be due to the prevalence of scarlet fever and septic throats with which several cases were associated.

Additional information regarding puerperal pyrexia is given in the section of the Report dealing with Maternity and Child Welfare Services.

Ophthalmia Neonatorum.

During 1934, there were 102 cases of ophthalmia neonatorum; this is equivalent to 32 cases per 1,000 registered births. Additional information regarding this disease is given in the section of the Report dealing with Maternity and Child Welfare Services.

INSECT AND VERMIN-BORNE DISEASES.

Typhus /

Typhus Fever, Plague.

There were no cases of these diseases during the year 1934.

Infective Jaundice.

In Chapter I. of this Report will be found a valuable paper by Dr. John Smith, Regional Bacteriologist, and others, relating to an investigation with reference to infective jaundice.

During the year, 23 cases were brought to the knowledge of the Department as having occurred in the City. Twenty of these cases received institutional treatment or were in institutions when notified. There was 1 death - a male adult.

TABLE I. - ABERDEEN - DEATHS AT ALL AGES FROM SELECTED CAUSES.
(per 100,000 of population) - Years 1856-1934.+

Year.	Smallpox	Scarlet Fever	Diphtheria and Croup	Measles	Whooping Cough	Influenza	Typhus Fever	Typhoid and Paratyphoid Fever	Tuberc. Dis.		Dis. of Digest. System (inc. Diarrhoea)	Cancer and other Malignant Diseases	Bronchitis	Pneumonia	Dis. of the Circl. System. #
									Respiratory	Other Tuberculosis					
1934	0	9	14	3	10	5	0	0	52	12	69	160	41	83	277
1933	0	3	6	6	10	35	0	0	54	12	80	155	56	98	267
1932	0	1	4	14	21	10	0	0	46	26	77	160	62	88	267
1931	0	4	4	5	14	18	0	1	69	21	57	151	83	116	280
1930	1	1	7	14	9	6	0	0	51	20	76	144	47	94	256
1929	0	1	12	0	8	42	0	0	55	26	75	162	75	142	279
Average 1929-1933	0.2	2	7	8	12	22	0	0.2	55	21	73	154	65	108	270
1928	0	3	9	30	22	12	0	1	68	34	77	149	57	89	242
1927	0	2	9	1	9	25	0	0	64	33	71	140	71	98	220
1926	0	4	12	12	9	21	0	0	72	38	90	128	54	77	202
1925	0	9	13	17	32	11	0	0	94	26	81	144	57	73	187
1924	0	2	7	34	44	33	0	1	88	43	61	142	82	87	209
Average 1924-1928	0	4	10	19	23	20	0	0.4	77	35	76	141	64	85	212
" 1921-1925	0	5	11	33	29	27	0	1	88	31	80	140	80	92	195
" 1916-1920	0	6	16	22	23	73	0	3	106	43	87	121	99	122	178
" 1911-1915	0.2	38	42	56	32	16	0	4	111	49	124	116	101	128	184
" 1906-1910	0	6	15	26	42	20	0	2	116	61	115	103	105	116	180
" 1901-1905	0.1	8	9	41	47	20	3	4	138	69	162	87	145	125	179
" 1896-1900	0	23	18	35	53	29	0.2	9	167	70	210	87	172	109	167
" 1891-1895	0.4	21	22	63	52	56	1	10	181	72	190	81	210	100	156
" 1886-1890	1	14	10	80	66	9	1	15	184	67	202	68	216	100	175
" 1881-1885	02	13	15	36	67	1	6	13	204	74	185	69	251	82	159
" 1876-1880	1	35	30	28	66	2	19	29	223	101	194	61	286	72	146
" 1871-1875	48	68	30	53	68	5	20	35	243	107	214	56	281	60	136
" 1866-1870	4	71	5	50	62	8	62	49	298	130	259	59	238	70	122
" 1861-1865	36	93	49	51	62	12	176		274	128	280	57	220	59	122
" 1856-1860	40	118	54	70	69	12	109		322	179	203	56	182	58	111

+ Corrected for transferred deaths in 1904 and subsequent years.

From 1911 onwards, Cerebral Embolism and Thrombosis excluded.

TABLE II. - PROGRESS OF INFECTIOUS DISEASES DURING PRECEDING TWELVE MONTHS.

Disease.		1934. Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Whole Year.
A. Compulsorily Notifiable.														
Smallpox	Cases	-	-	-	-	-	-	-	-	-	-	-	-	-
	Deaths	-	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever. ...	Cases	297	295	261	171	161	123	80	99	142	198	150	145	2122
	Deaths	3	2	4	1	1	1	1	-	-	2	1	-	16
Diphtheria	Cases	89	90	74	86	53	44	23	26	29	54	80	71	719
	Deaths	2	4	4	2	1	2	1	3	2	-	-	4	25
Typhus Fever.. ...	Cases	-	-	-	-	-	-	-	-	-	-	-	-	-
	Deaths	-	-	-	-	-	-	-	-	-	-	-	-	-
Enterica Infections	Cases	-	1	-	1	-	1	1	1	-	1	-	1	7
	Deaths	-	-	-	-	-	-	-	-	-	-	-	-	-
Dysentery	Cases	5	5	5	1	11	11	2	6	3	5	9	3	66
	Deaths	-	-	-	-	1	-	-	-	-	-	-	-	1
Acute Poliomyelitis	Cases	-	1	-	-	-	-	-	1	-	-	-	-	2
	Deaths	-	1	-	-	-	-	-	-	-	-	-	-	1
Epidemic Cerebro-spinal Meningitis	Cases	-	-	-	1	-	2	-	-	-	-	-	-	3
	Deaths	-	-	-	1	-	2	-	-	-	-	-	-	3
Epidemic Encephalitis	Cases	-	-	-	-	-	-	-	-	-	1	-	-	1
	Deaths	-	-	-	-	-	-	-	-	-	1	-	-	1
Acute Pneumonia Primary...	Cases	91	48	58	34	38	31	22	19	33	38	75	106	593
	Deaths	15	5	17	7	5	7	5	4	2	5	13	10	95
Acute Pneumonia Influenzal ...	Cases	1	-	-	-	-	-	-	-	-	1	1	5	8
	Deaths	-	-	-	-	-	-	-	-	-	1	-	2	3
Tubercle Pulmonary..	Cases	10	9	11	16	6	13	5	6	9	6	7	9	107
	Deaths	12	6	8	8	7	7	7	2	5	14	5	9	90
Tubercle Other ...	Cases	5	3	8	5	4	7	-	2	3	6	2	6	51
	Deaths	3	-	4	2	2	1	1	1	-	3	3	1	21
Erysipelas	Cases	9	17	16	24	13	4	8	10	10	17	10	11	149
	Deaths	2	1	2	1	-	-	-	-	-	-	2	-	8
Puerperal Fever ...	Cases	6	8	10	11	7	8	5	6	10	6	5	9	91
	Deaths	-	-	1	-	-	2	1	-	2	-	1	1	8
x Puerperal Pyrexia..	Cases	1	-	2	3	1	1	2	-	2	4	5	1	22
Ophth. Neonatorum...	Cases	5	5	10	10	11	13	10	6	2	17	3	10	102
Malaria	Cases	-	-	1	-	-	-	-	-	-	1	-	-	2
	Deaths	-	-	-	-	-	-	-	-	-	-	-	-	-
Infective Jaundice	Cases	-	-	-	2	2	3	2	-	2	3	4	5	23
	Deaths	-	-	-	-	-	-	-	-	-	1	-	-	1
Plague	...	-	-	-	-	-	-	-	-	-	-	-	-	-
B. Not Compulsorily Notifiable:														
‡ Measles	Cases	4	-	1	5	3	23	13	12	3	4	3	1	72
	Deaths	1	-	-	-	1	-	-	2	-	1	-	-	5
German Measles ...	Cases	1	-	-	-	1	1	-	-	2	3	3	1	12
	Deaths	-	-	-	-	-	-	-	-	-	-	-	-	-
‡ Whooping Cough ...	Cases	73	40	105	65	65	24	13	23	7	8	5	8	436
	Deaths	2	-	2	4	3	2	3	-	1	-	-	1	18
= Chickenpox... ...	Cases	15	10	12	2	6	15	-	1	11	8	11	15	106
	Deaths	-	-	-	-	-	-	-	-	-	-	-	-	-
Total ...	Cases	612	532	574	437	382	324	186	218	268	381	373	407	4694
	Deaths	40	19	42	26	21	24	19	12	12	28	25	28	296
Influenza, excl. Influenzal Pneumonia	Deaths	2	1	-	-	-	-	-	-	-	-	-	2	5

x Compulsorily notifiable from 1st October, 1929.
‡ Compulsorily notifiable from 1881-1903; now reported mainly by Sch. Attend. Officers.
= Compulsorily notifiable from 25th March, 1927 to December, 1932.

TABLE III. - MORBIDITY AND MORTALITY OF INFECTIOUS DISEASES DURING 1934.

Disease.		No. of Cases and Deaths at various Age-Periods. At all Ages	Years. Under 1	1-5	5-15	15-25	25-45	45-65	65+	Cases removed for instit. treatment. Municipal Hosps. City Hosp.	Woodend Hosp.	Other Insts.	Cases not removed to Hosp.
A. Compulsorily Notifiable.													
Smallpox ...	Cases	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever.	Cases	2122	24	546	1265	165	115	7	...	1416	...	16	690
	Deaths	16	1	2	7	...	5	1	...	11	...	...	5
Diphtheria ...	Cases	719	13	163	414	81	45	3	...	709	...	...	10
	Deaths	25	...	10	14	1	...	...	...	24	...	...	1
Enterica Infectns.	Cases	7	...	...	2	2	3	...	...	6	...	...	1
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery ...	Cases	66	6	29	21	1	5	2	2	25	...	...	41
	Deaths	1	...	...	...	...	...	...	1	...	...	...	1
Acute Polio-myelitis	Cases	2	...	...	1	...	...	1	...	1	...	...	1
	Deaths	1	...	...	...	...	...	1	...	...	...	...	1
Epidemic Cerebro-Spinal Meningitis	Cases	3	...	2	...	1	...	...	...	3	...	...	...
	Deaths	3	...	2	...	1	...	...	...	3	...	...	...
Epidemic Enceph-alitis	Cases	1	...	...	...	...	...	1	...	...	1	...	...
	Deaths	1	...	...	...	...	...	1	...	...	1	...	...
Acute Pneumonia -													
(a) Primary --	Cases	593	72	174	131	48	79	53	36	194	143	62	194
	Deaths	95	24	11	1	6	15	16	22	19	30	10	36
(b) Influenzal -	Cases	8	1	1	1	1	...	3	1	1	...	1	6
	Deaths	3	...	...	...	...	...	2	1	...	...	1	2
Tuberculosis Diseases -													
(a) Pulmonary	Cases	107	1	2	5	26	44	24	5	14	49	9	35
	Deaths	90	1	1	1	8	42	32	5	19	15	7	49
(b) Other --	Cases	51	1	12	17	9	6	4	2	4	20	11	16
	Deaths	21	1	6	3	3	3	1	4	2	5	9	5
Erysipelas ...	Cases	149	3	7	10	15	36	53	25	66	...	7	76
	Deaths	8	...	...	...	1	1	2	4	4	...	1	3
Puerperal Fever	Cases	91	...	...	...	27	64	...	...	86	...	4	1
	Deaths	8	...	...	...	1	7	...	...	4	...	4	...
Puerperal Pyrexia	Cases	22	...	...	...	2	20	...	...	11	4	3	4
Ophth. Neon.	Cases	102	102	...	...	...	...	...	...	10	...	20	72
Malaria ...	Cases	2	...	...	1	...	1	...	...	1	...	...	1
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...
Infective Jaundice	Cases	23	...	...	1	15	5	2	...	10	1	9	3
	Deaths	1	...	...	...	...	...	1	...	...	1	...	...
B. Not Compulsorily Notifiable.													
Measles ...	Cases	72	8	27	31	4	1	1	...	19	...	1	52
	Deaths	5	...	5	...	...	...	...	...	4	...	...	1
German Measles	Cases	12	1	4	6	1	...	...	...	1	...	...	11
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	Cases	436	44	163	229	...	...	...	...	17	...	2	417
	Deaths	18	8	9	1	...	...	...	...	4	...	1	13
Chickenpox ...	Cases	106	42	25	36	3	...	...	...	9	...	35	62
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...
Total...	Cases	4694	318	1155	2171	401	423	154	71	2603	218	180	1693
	Deaths	296	35	46	27	21	73	57	37	94	52	33	117

TABLE IV. - MORBIDITY AND MORTALITY OF INFECTIOUS DISEASES DURING EACH YEAR FROM 1924 to 1934.

Disease.		1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	Annual Average 1924-1933.
A. Compulsorily Notifiable.													
Smallpox ...	Cases	0	0	0	0	10	1	0	0	0	1	1	1.3
	Deaths	0	0	0	0	1	0	0	0	0	0	0	0.1
Scarlet Fever...	Cases	2122	1479	318	386	344	424	728	702	843	712	197	613.3
	Deaths	16	6	1	6	2	2	5	3	8	15	3	5.1
Diphtheria ...	Cases	719	301	205	326	505	410	458	303	323	432	286	354.9
	Deaths	25	11	6	7	12	20	15	15	20	22	11	13.9
Typhus Fever ...	Cases	0	0	0	0	0	0	0	0	0	0	0	0
	Deaths	0	0	0	0	0	0	0	0	0	0	0	0
Enterica Infections	Cases	7	9	5	3	8	7	16	7	3	40	9	10.7
	Deaths	0	0	0	1	0	0	1	0	0	0	1	0.3
Dysentery ...	Cases	66	143	95	94	91	66	97	48	44	15	2	69.5
	Deaths	1	2	2	2	3	3	1	4	1	0	0	1.8
Acute Poliomyelitis	Cases	2	10	1	1	1	2	2	3	5	5	6	3.6
	Deaths	1	1	0	0	1	1	0	0	0	0	0	0.3
Epidemic Cerebro-spinal Meningitis	Cases	3	5	11	8	2	4	4	2	3	1	4	4.4
	Deaths	3	3	4	5	3	3	3	2	2	0	3	2.8
Epidemic Encephalitis	Cases	1	1	2	0	1	3	4	1	0	9	7	2.8
	Deaths	1	1	2	0	1	1	0	0	0	0	3	0.8
Acute Pneumonia Primary	Cases	593	633	607	706	655	869	485	579	377	497	383	579.1
	Deaths	95	126	87	150	100	184	112	124	97	102	121	120.3
Acute Pneumonia Influenzal	Cases	8	43	20	18	12	74	34	136	57	39	77	51.0
	Deaths	3	20	8	9	2	35	11	21	13	6	29	15.4
Tubercle Pulmonary	Cases	107	128	140	146	128	126	150	184	219	227	285	173.3
	Deaths	90	93	79	116	85	91	113	105	119	154	143	109.8
Tubercle Other	Cases	51	55	87	94	71	82	129	135	137	144	134	106.8
	Deaths	21	20	45	36	34	43	55	55	63	43	70	46.4
Erysipelas ...	Cases	149	113	94	107	144	132	119	95	120	124	92	114.0
	Deaths	8	6	6	8	11	10	6	2	5	9	4	6.7
Puerperal Fever.	Cases	91	75	71	74	72	49	48	38	36	18	15	49.6
	Deaths	8	7	14	6	5	7	10	9	8	10	8	8.4
Puerperal Pyrexia	Cases	22	21	24	18	20	21	25	..	..	..	..	..
Ophth. Neonatorum	Cases	102	53	60	69	67	70	51	54	48	59	69	60.0
Malaria ...	Cases	2	2	3	6	5	4	7	4	6	4	3	4.4
	Deaths	0	0	0	0	0	0	0	0	0	1	0	0.1
Infect. Jaundice.	Cases	23	0	0	0	0	0	0	0	0	0	0	0
	Deaths	1	0	0	0	0	0	0	0	0	0	0	0
Plague ...	...	0	0	0	0	0	0	0	0	0	..	..	..
B. Not compulsorily Notifiable.													
Measles ...	Cases	72	619	1562	203	2461	48	1812	199	991	1322	1488	1070.5
	Deaths	5	10	24	9	23	0	50	1	20	27	56	22.0
German Measles..	Cases	12	27	365	34	9	15	65	22	25	362	111	103.5
	Deaths	0	0	0	0	0	0	0	0	0	0	0	0
Whooping Cough..	Cases	436	330	752	797	375	428	579	395	362	933	1712	666.3
	Deaths	18	17	36	24	15	13	37	15	15	53	71	29.6
Chickenpox ...	Cases	106	176	1340	718	866	466	397	336	265	266	318	514.8
	Deaths	0	0	0	0	0	1	0	0	0	0	0	0.1
Influenza, excl. Influenzal Pneum.	Deaths	5	39	9	27	8	35	10	21	20	12	25	20.6

TABLE V. - STATEMENT OF NUMBER OF DECLARATIONS OF CONSCIENTIOUS OBJECTION TO VACCINATION.

Year.	Registered Births.	Deaths before Vaccination.	Survivors.	Con-scientious Objectors.	Percentage.	Year.	Registered Births.	Deaths before Vaccination.	Survivors.	Con-scientious Objectors.	Percentage.	Year.	Registered Births.	Deaths before Vaccination.	Survivors.	Con-scientious Objectors.	Percentage.
1907	4504	470	4034	84	2.1	1916	3627	401	3226	345	10.7	1925	3535	324	3211	262	8.2
1908	4450	511	3939	219	5.6	1917	2966	326	2640	347	13.1	1926	3557	291	3266	262	8.0
1909	4492	526	3966	339	8.5	1918	2817	351	2466	260	10.5	1927	3324	277	3047	243	8.0
1910	4300	448	3852	362	9.4	1919	3481	357	3124	357	11.4	1928	3448	258	3190	299	9.4
1911	4028	478	3550	406	11.4	1920	5010	500	4510	290	6.4	1929	3194	230	2964	269	9.1
1912	4152	511	3641	478	13.1	1921	4326	457	3869	364	9.4	1930	3431	245	3186	301	9.4
1913	3872	467	3405	491	14.4	1922	4038	398	3640	348	9.6	1931	3367	233	3134	323	10.3
1914	4041	481	3560	413	11.6	1923	3847	317	3530	305	8.6	1932	3111	246	2865	364	12.7
1915	3837	483	3354	412	12.3	1924	3527	352	3175	246	7.7	1933	3182	201	2981	348	11.7

CHAPTER III.

ENVIRONMENTAL HYGIENE.

TOWN PLANNING.

The Department of Health for Scotland have reported that, at the end of 1934, ten planning schemes, involving 89,409 acres, were in operation. The largest by far is the Joint Scheme for Aberdeen and District, which covers an area of 96 square miles.

The Joint Town Planning Scheme is now in full working order and evidence is readily available as to its beneficial effects on the progress of development in the City and suburbs. The outer ring road is slowly taking shape as buildings are erected, and, whilst no startling advance can be expected, the advantages of this road are beginning to be appreciated.

Regarding the parts of the City which are ripe for clearance, every effort is being made to keep the centre of the City safeguarded against overbuilding, even in respect of business premises.

Open spaces are another feature which is being kept in the foreground, and every care will be taken to ensure that the health facilities - especially for young children - will be reserved within convenient distances.

The distribution of heavy industries and offensive trades outwith areas which are mainly residential must be a slow process, but no opportunity should be neglected of seeing that they take their places in the zones mapped out for them, where they will be within easy reach of transport and labour while sufficiently removed from centres of population to be non-injurious to health.

HOUSING CONDITIONS.

Temporary Dwellings in the Jute Buildings.

In December, 1934, an instruction was given to the Medical Officer of Health to investigate the health of the occupants of the Jute Buildings and the following memorandum was submitted:-

> History of Temporary Dwellings in Jute Buildings:
>
> In October, 1933, the Town Council considered the question of the temporary housing of persons living in tents and caravans at Seaton Place, Canal Road and other parts of the City. As a temporary expedient, forty-six houses were built to accommodate such persons, and entry was given to the first batch of tenants in January of this year. It was found, however, that, after all the dwellers in tents and caravans had been accommodated, there was a surplus of nineteen houses, and these were let to families living either in sub-lets or under very over-crowded conditions. The forty-six houses were built within the permanent structure of the buildings, formerly known as the Jute Works, and, with one exception, were each two-roomed houses. Each apartment measures 16 ft. x 11 ft. According to present-day standards, the ventilation area is adequate, but in none of the rooms is there a fireplace. The only method of artificial heat is by gas. The living-room of each house is provided with a range plate for cooking purposes, but there is no special arrangement for heating beyond the provision of a "cock" on the gas pipe to which a gas radiator, supplied by the Council, was fitted. In many instances, the/

the radiators are not being used and the occupants make use of a cheap open gas fire which they have themselves acquired. In most cases, the carbon fuel in this open fire has been damaged or removed, with the result that a broad blue flame is emitted, thus tending to pollute the atmosphere with gas fumes. The houses are constructed of timber framing on the top of the existing concrete floor.

Number of Occupants:

There are now 45 families, comprising 264 individuals. One house is at the moment empty. About 20 of the 45 houses are well-kept and the occupants of these houses are, in nearly every case, persons who were taken either from sub-let or overcrowded conditions.

During the inspections - especially when these were of a "surprise" nature - a large number of the ventilators and windows was closed, and, in addition, several of the houses were over-heated. All the tenants of the houses are not discontented. For example, during our visits, one householder (where the family consisted of husband, wife and three children) stated that it was the best house he had had since marriage and that, since entering into occupation at the Jute Buildings, they had all enjoyed very good health, but that it was only natural for him to put forward his claims for a better house.

Physical Condition of Occupants:

Prior to November, 1934, only one concrete complaint was made with regard to the health of the occupants, until there occurred the death of a child from tuberculous peritonitis. In October, 1933 - prior to admission to the Jute Buildings - the deceased child was taken by her mother to the Tuberculosis Institute where a diagnosis of tuberculosis was then made. In addition, two other children of this family are under observation at the Tuberculosis Institute, as also is the father.

The diseases from which the occupants of the houses suffer are, in the main, catarrhal conditions of the lungs and air passages, whooping cough, broncho-pneumonia, rheumatism, tuberculosis, impetigo and scabies. Those suffering from rheumatism ascribe the condition as being due to or aggravated by their housing conditions. It cannot be held that the incidence of tuberculosis amongst the occupants of the houses exceeds that which is prevalent in comparable populated areas in the City. With regard to whooping cough, with what might be called its normal sequela of broncho-pneumonia, the incidence is not excessive. Impetigo and scabies have no relation whatsoever to housing conditions except in so far as lack of cleanliness is concerned.

Housing conditions per se cannot be regarded as the sole factor causing or aggravating any disease. Other factors enter the field, such as, the quality and quantity of the food consumed, the character of the cooking, the regularity of meals, the general conduct of the people, heredity and so on.

A frequent complaint made was that the "back" room was so damp that when children developed catarrhal colds and had to sleep in this room, it was a long time before they recovered completely.

A distinction must here be made between real dampness and condensation; in the great majority of cases investigated, the cause of the apparent dampness was condensation. It is true that in a limited number of the "back" rooms, where the original wall of the Works is not covered with Treetex, moisture is present on the walls, which is undoubtedly unsightly, and this naturally leads the occupants to think that true dampness exists. This condition can, of course, be mitigated by the action of the tenants themselves.

It was observed that during evening visits the noise created by the children was very disturbing, and certain of the tenants stated that/

that they had to keep their windows closed in order to exclude this noise. Unquestionably, this excessive noise is largely due to the fact that these temporary dwellings are situated within another building.

There are three pregnant women in these houses, and it must be confessed that the conditions there are not suitable for the completion of pregnancy.

Recommendations:

It should be remembered that these houses in the Jute Buildings were never intended to be used as ordinary or permanent dwellings. They constitute merely a "clearing-house", and, as such, serve a very useful purpose. For medical reasons, it is not advised that these people should reside in their present houses for an indefinite period, and, when other houses are available, these should be offered to those tenants in whose families there exist such diseases as tuberculosis and rheumatism, and special consideration might also be given to those who have maintained a reasonably high standard of cleanliness.

From investigations made, I am of opinion that catarrhal colds are more prevalent amongst the inhabitants of the Jute Buildings than in the general population and it is also medically likely that the convalescence of children so affected is retarded. At the same time, I wish definitely to state that the houses in the Jute Buildings cannot be classified as uninhabitable and that the conditions under which the majority of the tenants is now living - especially the tent and caravan dwellers - are immeasurably superior to those under which they previously lived.

It is not by any means claimed that the conditions existing in the Jute Buildings are ideal. Take, for example, the question of ventilation. The best available means of ventilation have been provided, but these are not ideal. Since the complaint was originally lodged, an attempt at cross ventilation of the main building has been effected by forming ventilators on the roof, and the caretaker has been instructed to open these periodically.

One cannot ignore the fact that there may be an economic factor in a proportion of the complaints. Some of the tenants say quite candidly that, whereas they are paying 5/3 per week for their two rooms, it is possible for certain other rate-payers to get a well-built, substantial new three-roomed house at 5/- per week or less.

An inquiry of this kind must necessarily be fragmentary, because I am not in possession of the physical conditions of all the members of all the families in the Jute Buildings before they took up tenancy there. From the purely medical point of view, it is therefore recommended that the first tenants to obtain new houses should be those already mentioned, namely, pregnancy cases, tuberculous families, families where there is distinct evidence of rheumatism, and tenants who have shown themselves to be capable of keeping their homes in a hygienic condition.

Already several families have, for medical reasons, been removed from the Jute Buildings to other houses belonging to the Town Council.

1. Number of Houses Built by Private Enterprise.

Since 1919, 1685 houses have been built with the aid of subsidies under the Housing Acts.

In 1934, 228 houses were completed without the aid of subsidy whilst 188 were completed with the aid of subsidy. Thus a total of 416 houses was erected by private enterprise, as compared with 488 in 1933 and 221 in 1932. The scheme for assistance to private enterprise terminated on 31st March, 1934.

The number of houses built by private enterprise is steadily increasing, and, during the current year, a large number of such houses will be/

be erected. The purchase of these houses by individual householders will render vacant many houses and this must, by a process of decanting, diminish the number of overcrowded and sub-let houses.

2. Number of Houses erected by the Local Authority.

A total of 204 new houses, under the Housing Schemes, was completed during the year, and, at 31st December, 1934, there were in course of erection 36 houses at Mansefield Road, Torry, 324 at School Road and 48 at Seaforth Road.

Including 352 houses erected in connection with the Improvement Scheme, the total number of houses completed in the City since 1919 under the Corporation Housing Schemes, was 3304.

3. Type and Rental of New Houses.

The room capacity of the 3,304 additional houses is as follows:-

154	houses contain	4 rooms.
2110	" "	3 rooms.
1040	" "	2 rooms.

The respective rentals of these houses, exclusive of rates, are as follows:- 4 rooms - £32.10/-; 3 rooms - ranging from £22 to £28, with a cheaper type at £15 and £16; and 2 rooms - mostly £12 to £14 (48 houses at £19 and £20). At 31st December there were 30 new 3-roomed houses let on a differential basis at an average rent of 6/5 per week, including rates.

4. Sub-let Houses.

A census of sub-let houses was last made in 1925 and it was then found that 2,232 families were living in sub-let apartments. The present number of sub-let houses is unknown, but a re-survey is required under the Housing (Scotland) Bill.

5. Overcrowded Houses.

During 1934, 588 houses were found by the Sanitary Staff to be overcrowded. The total number of overcrowded families known to the Sanitary Department is 1,664, the excess above the recognised hygienic standard ranging approximately from one half adult to six and a half adults. Apart from health considerations, the worst feature in overcrowding is lack of provision for separation of the sexes, and, out of the 1,664 cases mentioned above, the facilities for sex separation were deficient in 744. In 216 cases, although actual overcrowding did not exist, there was no separation of the sexes.

6. Insanitary Dwellings.

In 1934, four dwellings were voluntarily closed by arrangement with the owners owing to their being unfit for human habitation. It was found impossible to close officially any insanitary dwellings during the year.

7. "Medical" Applicants for new Houses.

Over 1700 applicants for new houses have presented medical certificates from their family doctors certifying that, for medical reasons, the provision of other houses was essential. In such cases the most clamant applications are dealt with by the Factorial Department.

FACTORIES, WORKSHOPS and WORKPLACES.

Factories - Table VI. is submitted giving details of the administration of the Factory and Workshop Act, 1901. No prosecutions had to be instituted under the Act, but a large number of defects discovered during the routine inspections was remedied.

Workshops - The number of workshops, exclusive of bakehouses, registered at the end of 1934 was 680, as compared with 703 in 1933. Every workshop is inspected by the Sanitary Staff at least once a year, and an effort is made/

made to keep it in accordance with the requirements of the Public Health Act and the Factory and Workshop Acts. Fish-curing and provision-curing works are inspected very frequently, some of them almost daily, the primary object of the visit being the inspection of food. The majority of the defects found during 1934 had reference to lack of cleanliness.

TABLE VI. - ABERDEEN - FACTORIES, WORKSHOPS and WORKPLACES, 1934.

1. - Inspection of Factories, Workshops and Workplaces.
Including Inspections made by Sanitary Inspectors.

	Number of		
	Inspections	Written Notices	Prosecutions.
Factories (including Factory Laundries)	1,253	218	-
Workshops (including Workshop Laundries)	1,793	276	-
Workplaces (other than Outworkers' premises)	39	12	-
Total	3,085	506	-

2. - Defects found in Factories, Workshops and Workplaces.

Particulars.	Number of Defects			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts *				
Want of Cleanliness	411	401	-	-
Want of Ventilation	3	1	-	-
Overcrowding	-	-	-	-
Want of drainage of floors.. ...	2	2	-	-
Other nuisances	69	63	-	-
Sanitary Accomm. (Insufficient	4	3	-	-
Sanitary Accomm. (Unsuitable or defective	17	17	-	-
Sanitary Accomm. (Not separate for sexes	-	-	-	-
Offences under the Factory & Workshop Acts.				
Illegal occupation of underground bakehouses (s.101)	-	-	-	-
Other offences ... ... (excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Dept. of Health (Factories & Workshops Transfer of Powers) Order, 1921).	-	-	-	-
Total	506	487	-	-

* Including those specified in Sections 2, 3, 7 and 8 of the Factory & Workshop Act, 1901, as remediable under the Public Health Acts.

Bakehouses - The bakehouses, of which there were 78 in the City in 1934, as against 80 in the preceding year, were, as usual, inspected every quarter, or oftener, and were found, on the whole, to be in a satisfactory condition. Certain sanitary defects in connection with bakehouses were remedied at the suggestion of the Health Department.

Home Workers - With regard to home workers, the usual routine inspections were made in connection with the sanitary condition of the premises and the prevention of infectious diseases.

Inspection of Plans - During the year under review, plans of 35 premises, chiefly alterations and additions to existing buildings, were examined and reported on. Certain recommendations in regard to the sanitary requirements of the premises were given effect to prior to the approval of the plans by the Town Council.

TABLE VII. - ABERDEEN - METEOROLOGICAL RECORD FOR EACH MONTH (From King's College Observatory).

YEAR 1934.

MONTH	BAROMETRIC PRESSURE (at 32°F. and Sea Level)			TEMPERATURE OF ATMOSPHERE				Mean Daily Temp. of Ground (4 ft. Below surface)	Relative Humidity Sat = 100.	RAINFALL		SUNSHINE		WIND Direction; and Duration in Hours.									Velocity
	Absolute Highest	Absolute Lowest	Mean Daily Range	Absolute Highest	Absolute Lowest	Mean Daily Temp.	Mean Daily Range			Duration	Amount	Duration	Percentage of possible sunshine	N.	NE	E	S.E.	S.	S.W.	W.	N.W.	Calm	Average No. miles per day.
	Inches	Inches	Inches	$^{\circ}$F.	$^{\circ}$F.	$^{\circ}$F.	$^{\circ}$F.	$^{\circ}$F.	%	Hrs.	Inches	Hrs.											
January	30.70	28.63	0.34	54.0	29.8	41.5	8.0	40.9	80	70	1.7	55	24	6	1	1	10	303	190	101	122	-	291
February	30.83	29.37	0.23	57.6	25.2	42.8	11.1	40.5	74	47	0.7	83	31	11	1	6	5	63	166	234	175	11	251
March	30.32	28.48	0.26	58.3	29.5	40.3	10.9	40.3	75	67	1.1	142	39	29	21	111	90	138	107	113	133	2	279
April	30.35	28.99	0.24	60.4	32.5	43.0	9.4	42.3	81	150	6.1	128	30	111	58	114	65	144	46	26	154	2	294
May	30.49	29.19	0.26	68.9	35.2	49.7	13.5	46.5	74	96	3.5	188	37	21	18	39	102	199	81	145	132	7	246
June	30.46	29.42	0.17	73.4	38.7	53.7	12.6	51.2	80	40	1.2	204	38	96	48	134	62	136	34	46	160	4	195
July	30.41	29.48	0.11	74.7	47.7	60.3	12.1	55.6	80	49	1.7	186	35	14	20	79	151	218	57	93	109	3	180
August	30.20	29.28	0.21	69.3	41.5	57.5	11.5	57.0	80	102	4.4	173	37	10	16	56	92	216	128	120	103	3	213
September	30.42	29.21	0.25	64.9	38.5	54.1	11.0	55.3	84	73	2.9	143	37	1	1	29	177	307	81	83	39	2	231
October	30.27	28.78	0.32	64.8	31.5	48.0	11.2	51.9	78	117	3.5	112	35	14	5	16	45	160	193	171	135	5	269
November	30.45	29.39	0.16	55.9	26.6	42.1	9.4	45.8	85	101	2.4	66	27	34	24	10	8	105	144	144	248	3	209
December	30.15	28.76	0.24	51.1	31.6	44.7	5.5	44.4	88	174	4.2	15	7	38	20	24	274	227	56	27	73	5	311
Monthly Average	30.42	29.08	0.23	62.8	34.0	48.1	10.5	47.6	80	91	2.8	125	31	32	19	52	90	185	107	109	132	4	247
Total for Year.	...	...	...	...	...	...	...	...	...	1086	33.4	1495	...	385	233	619	1081	2216	1283	1303	1583	47	...

OFFENSIVE TRADES.

Slaughterhouses - At the end of 1934, there were 4 licensed slaughterhouses within the City.

Other Offensive Trades - The offensive trades in Aberdeen, within the meaning of the Public Health (Scotland) Act, 1897, are concerned chiefly with tallow-melting or oil extracting from ox bones or fish livers, soap boiling, knackering, hide factoring, and the manufacture of manures and fish meal. At the end of the year, 22 firms were carrying on one or more offensive trade, and the total number of trades so conducted was 36.

New Applications for Establishment of Offensive Trades - No applications were received in the course of the year.

Number of Inspections made - Excluding visits to slaughterhouses, the number of visits to premises in which offensive trades are being carried on was 2,367.

ATMOSPHERIC CONDITIONS.

Weather and Disease - In Table VII. is summarised the state of the weather in Aberdeen for each month throughout the year under review.

As regards sunshine, the month which enjoyed the most sunshine was June, with 204 hours for the whole month, or fully six hours a day, while the month with least sunshine was December, with 15 hours for the whole month, or less than one hour a day. As regards the actual percentage of possible sunshine, December was lowest with 7 per cent., as against 17 per cent. in preceding years. The total amount of sunshine for the year under review was much above the average for the years 1897-1926.

March was the coldest month, with a temperature of 40.3°F., the warmest month being July with a temperature of 60.3°F. The difference in temperature between the coldest and warmest months was 20.0°F., which was above the average for the years 1897-1926 (17.4°F.). The mean temperature for the whole year was 48.1°F., the average for preceding years being 46.3°F. The mean daily range of temperature, or the difference between the highest and lowest for the day, averaged 10.5°F. in 1934.

During 1934, the driest month was February with 0.7 inches of rainfall, (including snow or hail). April was the wettest, with 6.1 inches of rainfall as against an average of 2.2 for the years 1897-1926. The total amount of rainfall was about the average for preceding years.

In 1934, the most prevalent winds in Aberdeen were from the south and north-west, the least prevalent winds being north-easterly winds.

WATER SUPPLY.

The following Table (Table VIII.) measuring in percentages the degree of purity of the water in terms of bacillus coli, provides evidence of the present state of the water as compared with the previous year.

TABLE VIII. - ABERDEEN - QUALITY OF WATER - TYPICAL BACILLUS COLI.

Year.	Samples from -	Absent in 100 c.c. %	Present in 100 c.c. %	Present in 50 c.c %	Present in 20 c.c. %	Present in 10 c.c. %	Present in 5 c.c. %	Present in 1 c.c. & less. %
1934	Cairnton Intake -							
	River Water at Intake	...	...	...	...	8	31	61
	Aberdeen Tap Water	52	23	15	4	6	...	...
1933	River Water at Intake	...	...	...	2	6	42	50
	Aberdeen Tap Water	56	21	15	6	2	...	...
	Aberdeen Tap Water, 1907, (i.e., before the water was filtered).	...	...	13	...	29	33	25

CHAPTER IV.

SPECIAL HEALTH SERVICES.

MUNICIPAL HOSPITAL SERVICES.

(a) Woodend Hospital.

The diseases treated at Woodend Hospital, together with the beds available under each group, are as follows:-

(1) Infectious Diseases -

Tuberculosis	148	
Pneumonia	30	
Rheumatism	6	
		184 beds.

(2) Cases coming within the purview of the Maternity Service and Child Welfare Scheme. ... ... 16 beds.

(3) General Diseases -

Medical	74	
Surgical	50	
		124 beds.
Total		324 beds.

The number of beds allocated as between medical and surgical cases in the above-named category is fluctuating, because, in senile cases, there is interchangeability in medical and surgical beds. The actual number of beds available for acute cases is 50 for surgical and 50 for medical cases.

Table IX. gives the number of admissions and discharges during 1934.

TABLE IX. - ABERDEEN - WOODEND HOSPITAL. Year 1934.

	In Hospital on December 31, 1933.	Admitted during the year.	Discharged during the year.	Died in Hospital	In Hospital on December 31, 1934.
A. - General Hospital.					
Surgical Cases ...	50	580	464	96	70
Medical Cases ...	76	819	662	139	94
Gynaecological Cases	20	234	240	2	12
Total ...	146	1,633	1,366	237	176
B. - Special Hospital.					
Tuberculosis -					
(a) Respiratory ...	79	139	126	26	66
(b) Other ...	63	126	139	10	40
Rickets & Orthopaedic	9	30	29	0	10
Total ...	151	295	294	36	116
Total A and B	297	1,928	1,660	273	292

During 1934, the daily number of patients under treatment in the General Hospital varied from 129 to 199, the average daily number being 159. In the Special Hospital, the daily number of patients varied from 116 to 155, the average daily number being 139. In 1933, the average daily number of patients was 152 in the General Hospital and 151 in the Special Hospital.

In 1934, the total number of Public Assistance cases admitted was 803, with 157 deaths, as compared with 806 admissions and 211 deaths in 1933. With regard to cases from the County of Aberdeen and other Counties, there were in 1934, 130 ordinary admissions with 20 deaths, whereas from the same areas, 144 cases of tuberculosis were admitted and of these 16 died; the corresponding figures for 1933 were 126 ordinary admissions with 15 deaths, and 143 cases of tuberculosis with 18 deaths.

The operations performed during the year numbered 924, of which 559 were performed under general or spinal anaesthesia.

In June, 1929, arrangements were come to with the Directors of The Aberdeen Royal Infirmary whereby the surgical waiting list of that institution would be decreased by the admission to Woodend Hospital of surgical cases whenever beds were available in the latter institution. During 1934, under this arrangement, 216 general surgical cases were dealt with. These cases were investigated and treated in Woodend Hospital by the surgeons of the Royal Infirmary, who had, in almost all cases, seen the patients in the first instance at the Out-patient Department of the Infirmary.

X-ray Department. A total of 1,625 cases attended the X-ray Department, 2,784 plates being taken.

(b) Oldmill Hospital - Medical Report.

During 1934, the medical administration of Oldmill Hospital was carried out as in previous years and the arrangements for the treatment of Public Assistance cases sent to the institution were found to be adequate and worked satisfactorily.

The medical administration is carried out as follows:-

1. All cases arriving for admission are medically examined and are thereafter allocated either to wards in Woodend Hospital or to the ordinary wards in Oldmill Hospital, according to the findings of the examining Medical Officer. By this means, sick cases are admitted direct to Woodend Hospital.
2. The Medical Officer pays a daily visit to Oldmill Hospital for the purpose of (a) examining inmates who report sick, (b) removing to Woodend Hospital such persons as require special nursing and treatment, and (c) directing treatment in minor ailments (e.g. cuts and bruises) which can be carried out successfully in Oldmill Hospital by a trained nurse from Woodend Hospital.
3. All children are examined monthly or at any other time on request by the Chief Public Assistance Officer. Medical reports are furnished with regard to fitness for "boarding-out".
4. All dormitories, beds, lavatories, clothing, food and cooking arrangements are periodically inspected.

The usual classification of cases was found to be satisfactory, viz:-

1. Infants, under 2 years of age.
2. Children, from 2-15 years of age.
3. Sick persons.
4. Aged and infirm persons.
5. Ordinary cases.

All children under 2 years of age are admitted to Woodend Hospital from which a number of healthy children are later transferred to Thorngrove Home for Mothers and Babies according to available accommodation in the latter institution. All sick infants are treated in Woodend Hospital.

At Oldmill Hospital, a Nursery is set aside for the accommodation of children between the ages of 2 and 15 years. The Nursery is a separate building and accommodates children only.

All inmates requiring medical or surgical hospital treatment are transferred to Woodend Hospital, irrespective of age.

Aged and infirm cases are removed from Oldmill Hospital to Woodend Hospital when their physical or mental condition necessitates treatment in the sick wards.

Admissions. - The number of Public Assistance cases admitted to Woodend Hospital during 1934 was as follows:-

	Males.	Females.	Total.
Transferred from Oldmill Hospital Wards..	95	74	169
Transferred on admission to Oldmill Hospital ...	305	329	634
Total ...	...	...	803

Of the total number, 151 were children.

Discharges from Woodend Hospital:	Males.	Females.	Total.
	312	303	615

Deaths. - During the year, 157 Public Assistance cases died in Woodend Hospital.

In the Nursery, the following infectious diseases were encountered:-

Scarlet Fever ...	3 cases.
Diphtheria ...	4 cases.

These cases were removed to the City Hospital and all recovered completely.

Many beds in Woodend Hospital are permanently occupied by aged persons, who, although unsuitable for Oldmill Hospital, do not require the expert nursing and medical attention which is provided in Woodend Hospital. As no alternative accommodation at present exists for this type of case, there is in consequence a limitation of beds available for the treatment of cases of acute illness.

In Oldmill Hospital, the dietary is on an adequate scale; the sanitary arrangements are good and the cleanliness and state of repair of the buildings are excellent. The staff is competent and capable of carrying out the work entailed and the equipment is complete and up to date.

The utmost harmony exists between the two hospitals and the medical administration works smoothly.

(c) City Hospital.

The total number of beds available in the City Hospital is 285. There is a mobile ward of 60 beds which may be used for diphtheria, scarlet fever, puerperal fever and pyrexia, or tuberculosis.

The admissions to the City Hospital during 1934 are shown in Table X.

Of the 3,207 admissions, 359 cases were admitted from areas outside the City. There were 170 deaths, of which 41 were among County cases.

TABLE X./

TABLE X. - ABERDEEN - CITY HOSPITAL. Year 1934.

	In Hospital on December 31,1933.	Admitted during the year.	Discharged during the year.	Died in Hospital.	In Hospital on December 31, 1934.
Smallpox	-	-	-	-	-
Chickenpox	-	9	8	-	1
Scarlet Fever	164	1,565	1,582	16	131
Diphtheria	52	741	665	29	99
Enterica Infections ...	2	15	15	1	1
Dysentery	-	25	23	-	2
Cerebro-spinal Meningitis	1	3	1	3	-
Acute Poliomyelitis ...	9	1	10	-	-
Acute Pneumonias ...	25	220	200	18	27
Tuberculosis	32	50	27	24	31
Erysipelas	8	78	77	4	5
Puerperal Fever and Pyrexia	9	151	132	15	13
Measles	-	19	15	4	-
Whooping Cough... ...	-	16	11	5	-
Venereal Diseases ...	-	23	20	-	3
Ailing Infants... ...	11	124	87	28	20
Miscellaneous Cases ...	6	167	137	23	13
Total ...	319	3,207	3,010	170	346.

The admissions from areas outwith the City were as follows:-

	Cases.	Deaths.
Scarlet Fever	144	5
Diphtheria	55	5
Enterica Infections... ...	9	1
Acute Pneumonias	25	1
Tuberculosis	4	3
Erysipelas	12	-
Puerperal Fever and Pyrexia.	55	11
Measles	2	-
Whooping Cough	1	1
Venereal Diseases	11	-
Ailing Infants	11	4
Miscellaneous Cases... ...	30	10
	359	41

The daily number of patients under treatment varied from 117 to 349, the average daily number being 261.

The operations performed at the City Hospital during the year numbered 700, of which 400 were carried out under general or spinal anaesthesia.

X-ray Department. A total of 1,061 cases attended the X-ray Department; 1,237 plates being taken.

Cleansing Block and Skin Department. Table XI. shows that during the year the number of verminous persons, whether members of families with children of school age or not, disinfected at the City Hospital Cleansing Department was 58, as compared with an annual average of 156 in the 1929-1933 quinquennium. This table also shows that a total of 864 persons was treated for scabies in the skin wards of the Cleansing Department, as compared with an annual average of 458 in the preceding five years.

TABLE XI./

TABLE XI. - ABERDEEN - CLEANSING STATION - 1934.

	Age-Groups (Years).				All Ages 1934.	Average 1929-33.
	0-5	5-15	15-25	25 +		
Verminous Persons Cleansed	5	8	9	36	58	156
Scabies Cases Treated ...	146	284	136	298	864	458
Total	151	292	145	334	922	614

(d) Kingseat Mental Hospital.

Statistics relating to Kingseat Mental Hospital are dealt with in the section of the Report relating to Mental Health Services.

TUBERCULOSIS SERVICES.

Mortality - There were 111 deaths from tuberculosis, 90 of these being due to pulmonary tuberculosis, 21 to non-pulmonary tuberculosis.

The death-rate from all tuberculosis continues to decrease. In 1933, the record figure of 66 per 100,000 of population was so low that a further reduction in 1934 was hardly to be expected. The decrease in 1934 is due to a fall in the rate for the pulmonary variety of the disease, while the non-pulmonary variety remains as it was last year, namely, 12 per 100,000. The rate of 52 per 100,000 of population for pulmonary tuberculosis is not a record, the rate in 1932 being 46.

The death-rate from non-pulmonary tuberculosis has decreased as regularly as, and to an even greater extent than, the rate from pulmonary tuberculosis and was 12 per 100,000 of population in 1934. This is less than a third of the mortality in 1924 due to non-pulmonary tuberculosis, while the mortality from pulmonary tuberculosis in 1934 was not quite the half of that of ten years ago.

Translating these figures into the actual number of deaths from the two classes of tuberculosis and allowing for the difference in population estimated for the individual years, it is calculated that if the number of deaths in 1934 had been as they were in 1914 there would have been 179 deaths from pulmonary tuberculosis as compared with the actual number of 90, and 92 deaths from non-pulmonary tuberculosis as compared with the actual number of 21. Similarly, making the comparison between 1924 and 1934, it is found that had deaths from all tuberculosis in 1934 been as they were in 1924, there would have been in 1934 228 deaths composed of 153 due to pulmonary tuberculosis and 75 to non-pulmonary tuberculosis. These are more than the actual number of deaths for 1934 by 63 for pulmonary tuberculosis, 54 for non-pulmonary; that is, 117 for all tuberculosis.

Year	Estimated Population	No. of Deaths			No. of Deaths in 1934 compared with the No. calculated on the population basis of 1914 and 1924.			
		Pulm. T.	Non-Pulm. T.	All T.		Pulm. T.	Non-Pulm. T.	All T.
1914	164,351	171	84	255	1934 on basis of 1914	179	92	271
1924	160,387	143	70	213	1934 on basis of 1924	153	75	228
1934	173,215	90	21	111	Actual No. of deaths in 1934	90	21	111

TABLE XII. - ABERDEEN. - MORTALITY FROM TUBERCULOSIS IN YEARS 1856-1934.[x]

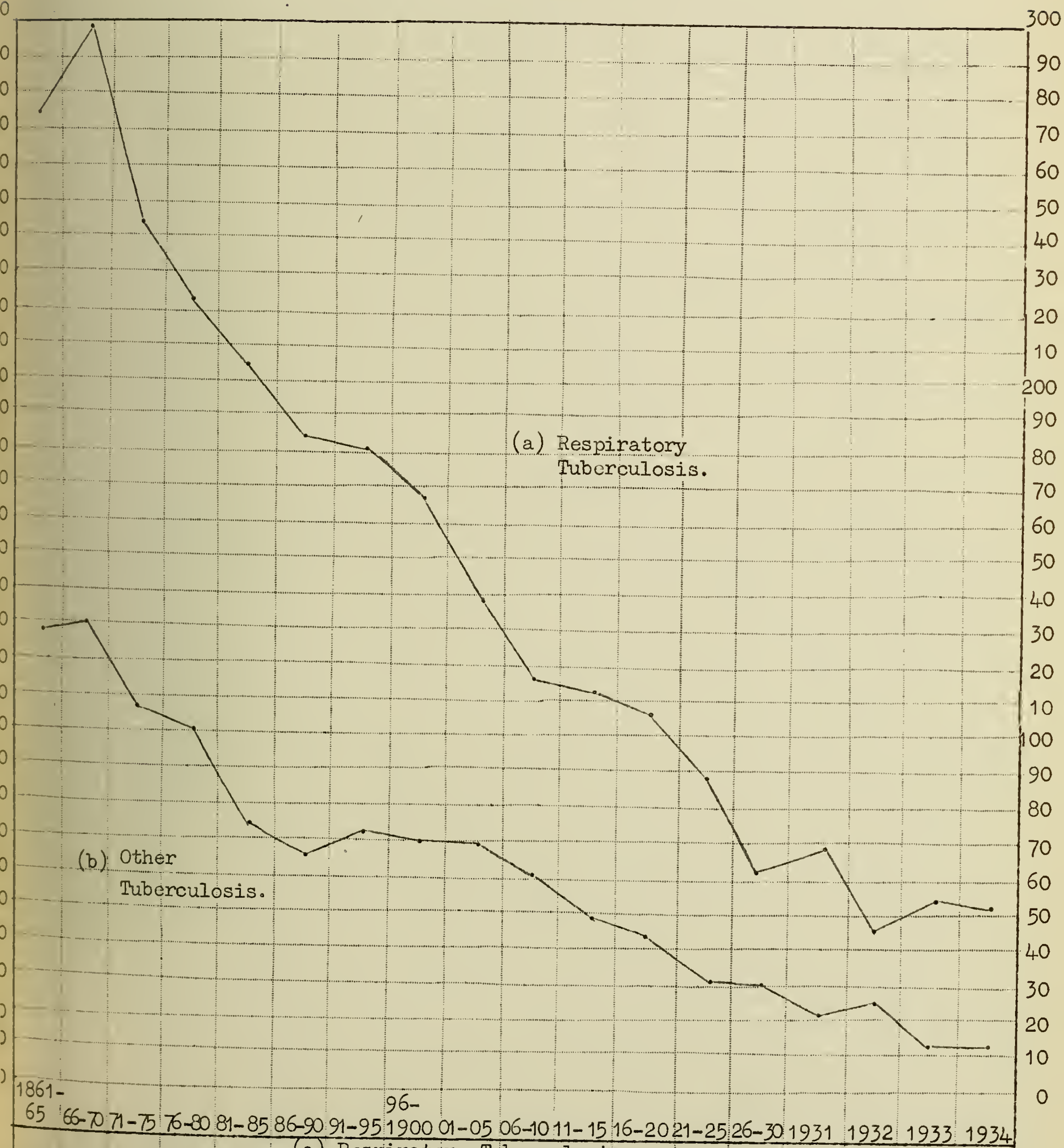
per 100,000 of Population.

Period.	Respiratory Tuberculosis.			Other Tuberculous Diseases.			All Tuberculous Diseases.		
	Males.	Females.	Both Sexes.	Males.	Females.	Both Sexes.	Males.	Females.	Both Sexes.
1856-60 .	333	312	322	235	135	179	568	447	501
1861-65 .	267	279	274	158	103	128	425	382	402
1866-70 .	295	300	298	170	98	130	465	398	428
1871-75 .	234	250	243	129	89	107	363	339	350
1876-80 .	217	228	223	112	92	101	329	320	324
1881-85 .	189	216	204	90	62	74	279	278	278
1886-90 .	179	188	184	76	60	67	255	248	251
1891-95 .	179	183	181	83	62	72	262	245	253
1896-1900 .	166	168	167	77	64	70	243	232	237
1901-05 .	143	134	138	79	62	69	222	196	207
1906-10 .	119	113	116	74	51	61	193	164	178
1911-15 .	125	99	111	53	47	49	177	146	160
1916-20 .	104	107	106	49	39	43	153	146	149
1921-25 .	99	81	88	37	27	31	136	108	119
1926-30 .	68	57	62	34	27	30	102	84	92
1931 . .	83	57	69	32	13	21	114	70	90
1932 . .	56	37	46	33	22	26	89	59	72
1933 . .	76	35	54	14	10	12	90	45	66
1934 . .	73	34	52	15	10	12	88	44	64

[x] Corrected for transferred deaths in 1904 and subsequent years.

ABERDEEN - TUBERCULOSIS, 1861-1934 - QUINQUENNIAL PERIODS.

All Ages. Both Sexes.
Deaths per 100,000 of Population.



	1861-65	66-70	71-75	76-80	81-85	86-90	91-95	96-1900	01-05	06-10	11-15	16-20	21-25	26-30	1931	1932	1933	1934
(a) Respiratory Tuberculosis.	274	298	243	223	204	184	181	167	138	116	111	106	88	62	69	46	54	52
(b) Other Tuberculosis.	128	130	107	101	74	67	72	70	69	61	49	43	31	30	21	26	12	12

(Corrected for transferred deaths in 1904 and subsequent years).

A comparison with the other large towns of Scotland emphasises the position of Aberdeen with regard to tuberculosis. The tuberculosis mortality in Aberdeen has been consistently lower than that of any of the other three cities Glasgow, Edinburgh and Dundee. Taking the annual mean of the five-year period which has 1914 as the centre year, Glasgow had an all tuberculosis mortality of 207 per 100,000 of population, made up of 138 and 69 pulmonary and non-pulmonary respectively, Edinburgh an all tuberculosis mortality of 169,made up of 116 and 53, Dundee an all tuberculosis mortality of 218, made up of 146 and 72, and Aberdeen a mortality from all tuberculosis of 159, made up of 111 pulmonary and 48 non-pulmonary. Compare these figures with those of 1934. In that year Glasgow had a mortality of 100 per 100,000 of population for all tuberculosis, made up of 79 pulmonary, 21 non-pulmonary. Edinburgh's figure was 84, made up of 66 and 18, Dundee's 80, made up of 54 and 26, Aberdeen's 64, made up of 52 and 12. Glasgow's mortality rate for all tuberculosis has therefore dropped in the twenty years by 51 per cent., Edinburgh's by 50 per cent., Dundee's by 63 per cent. and Aberdeen's by 60 per cent. Dundee can therefore boast a greater fall in this twenty-year period than any other of the cities, but this is largely because Dundee had a higher mortality than any of the others in the early years of tuberculosis propaganda. Aberdeen's 60 per cent. drop has resulted in a mortality for all tuberculosis last year of 64 per 100,000, as compared with 100 for Glasgow, 84 for Edinburgh, and 80 for Dundee. For all Scotland in 1934 the mortality from all tuberculosis was 75 per 100,000, made up of 57 pulmonary and 18 non-pulmonary. This represents a drop for all tuberculosis, as compared with the quinquennium 1912-1916 (mean annual mortality 166) of 55 per cent. The all tuberculosis mortality in 1934 for the sixteen large burghs of Scotland was 88 per 100,000 of population, made up of 67 pulmonary and 21 non-pulmonary tuberculosis, a drop for all tuberculosis of 54 per cent. since 1914.

So far as tuberculosis is concerned, Aberdeen stands in a distinctly favourable position. It may be that Aberdeen is on the whole less affected than the other three large cities by the various communal disabilities which are believed to be associated with a high death-rate for tuberculosis - poverty, malnutrition, poor housing and overcrowding. It is difficult to be satisfied as to how much credit is to be given to the anti-tuberculosis work of the City. This work depends largely on prevention of infection or rather of such an amount of infection as will cause progressive disease. The tuberculous person is often infected in childhood but does not die of pulmonary tuberculosis until he is adolescent or adult. He may die even in old age of this disease, often unrecognised and called chronic bronchitis; or having, possibly without recognition, been infective for years, he may recover and die of some other disease. It is a crucial difficulty to get a patient for treatment at a time when treatment is likely to be effectual and it is doubtful whether cases are now diagnosed earlier than they used to be twenty years ago. There are many reasons for this, the chief being that the disease is so insidious in its earlier stages that it gives rise to no suspicion in the minds of the patient, his relatives, or even his doctor. It seems to be certain that the only way to get hold of the 'early case' is to search for it, especially in the ranks of 'contacts'. All of the same household as an infective case of pulmonary tuberculosis should be examined, X-rayed and kept under periodic supervision. The practical difficulty of doing so is great, but it is not perhaps recognised so well as it might be that the greatest difficulty of all is one for which those in the 'contact' circle are themselves responsible. The patient himself, or herself - for it is the female patient with children who is the more prominent in this respect - often refuses to undergo the necessary treatment and segregation, and the contacts often refuse examination, principally on the ground that they feel quite well.

The failure to get cases at a curable stage may be illustrated by reference to the patients who, when first reported, are found to have tubercle bacilli in the sputum. Of the 92 who, at notification in 1932, had tubercle bacilli in the sputum, 23 - exactly one fourth - were dead within 6 months, 9 others were dead within 1 year, 7 others within 2

years and 8 others within 3 years. Ten had left Aberdeen or were not visited and 35 of the 92 were alive in June 1935. All of these 35 have had treatment in one of the hospitals and their expectation of life increased.

In 1934, 71 cases had tubercle bacilli in the sputum at notification. Of these, only 14 were in a stage of the disease which could be described as likely to respond successfully and permanently to treatment; 57 were in an advanced stage, 24 of these 57 are dead, much the greater proportion within a few months, some a few days, after notification. The remainder, after institutional care, have at least had their lives considerably prolonged.

So little change in this respect has occurred in the last 20 years that it is more than doubtful whether the position will be improved in the near future. Much work, on the other hand, is done in 'contact' examination and the results are of such a nature as to justify the opinion that if all contacts could be X-rayed very many more 'early' cases would be discovered, and that if those who were found to be suffering from a progressive or a potentially progressive lesion were adequately supervised and treated, a still further reduction of mortality would be assured. The present research in Aberdeen and the north-east of Scotland into the occurrence of the bovine type of the tubercle bacillus in cases of pulmonary tuberculosis - referred to in Chapter I of this Report - is throwing a new light on the position of milk as a factor in the causation of tuberculous disease of the lungs of human persons. It seems that a larger proportion of pulmonary tuberculosis is caused by the bovine bacillus than has been found to be the case further south in Scotland and a much larger proportion than in England. Whether or not such cases of pulmonary tuberculosis have been originally infected from cow's milk or from a human patient suffering from a bovine infection of the lungs, there appears to be an even stronger indication than ever to deal with tuberculosis in dairy herds.

Whatever improvement is made in the administration of tuberculosis it is hardly conceivable that mortality should fall at a greater rate than during the last ten years. It is possible that epidemiological influences, not yet determined, are a dominant factor in the situation.

Notifications - Table XIII(A) gives the number of tuberculosis cases notified during the year, divided into pulmonary and non-pulmonary cases, and arranged according to sex and age-period. During 1934, 107 cases of pulmonary tuberculosis were notified as against an annual average of 173 in the preceding ten years. There were 51 cases of other forms of tuberculosis notified in 1934 as against an annual average of 107 in the 1924-1933 decennium.

As regards the Site of the Disease, in the 51 cases notified as suffering from tuberculosis other than pulmonary, 8 were suffering from abdominal tuberculosis, 7 from tuberculous meningitis, 15 from tubercle of bones and joints (including the spine), 20 from tuberculous glands (mainly cervical), and 1 from generalised and other tuberculosis.

There were 4 deaths of abdominal cases, 6 of meningitis cases, 3 of cases of bones and joints and 8 of other cases.

As regards the number of cases notified during the year in which diagnosis of tuberculosis was confirmed by the Tuberculosis Medical Officer, Table XIII(A) shows that the diagnosis was confirmed in 93 pulmonary cases and 34 non-pulmonary cases, a total of 127 cases.

Table XIII(B) shows the number of persons belonging to Aberdeen at 31st December, 1934, who were known to be suffering from tuberculosis. The numbers are - 379 pulmonary cases and 141 non-pulmonary cases, a total of 520 persons.

Table XIII(C) gives particulars of those who died during 1934, detailing the period that elapsed between notification and death and between discharge from an institution and death.

Institutional Treatment - Table XIII(D) gives the number of notified and un-notified cases which received treatment under the Tuberculosis Scheme in Sanatoria or other institutions during 1934. Of the 201 cases admitted, 115 were cases of pulmonary tuberculosis and 86 were cases of non-pulmonary tuberculosis. The number of notified cases admitted to each institution is as undernoted.

TUBERCULOSIS CASES NOTIFIED AND WHO RECEIVED INDOOR INSTITUTIONAL TREATMENT.

	1934.		
	Pulm. Tubercle	Other Tubercle	Total.
City Hospital - Wards and Shelters...	43	5	48
Woodend " " " ...	81	34	115
Royal Infirmary	5	4	9
Kingseat Mental Hospital	5	-	5
Royal Mental Hospital	1	-	1
Royal Hospital for Sick Children ...	2	8	10
Linn Moor Home (for children) ...	-	12	12
Nursing Home	1	1	2
Total Admissions ...	138	64	202
Deduct cases treated in two institutions	23	2	25
	115	62	177

TABLE XIII. - ABERDEEN - (A). CASES OF TUBERCULOSIS NOTIFIED IN 1934.

		NUMBER OF CASES NOTIFIED AS SUFFERING FROM TUBERCULOSIS. AGE-GROUPS.									Number of cases notified during year in which diagnosis of Tuberculosis has been confirmed	
		Under 5	5-10	10-15	15-25	25-35	35-45	45-65	65 upwards	Total	Under 15	15 and upwards
Pulmonary	Males	2	2	-	9	11	16	16	5	61	3	53
	Females	1	2	1	17	10	7	8	-	46	1	36
Non-Pulmonary	Males	7	4	5	2	1	2	2	-	23	12	6
	Females	6	2	6	7	2	1	2	2	28	8	8

TABLE XIII. (B) /

TABLE XIII. - ABERDEEN - (B). NUMBER OF PERSONS BELONGING TO ABERDEEN AT 31st DECEMBER, 1934, WHO WERE KNOWN TO BE SUFFERING FROM TUBERCULOSIS.

		Number of Known Cases.								Total.
		Under 5	5-10	10-15	15-25	25-35	35-45	45-65	65 up-wards.	
Pulmonary.										
1. Sputum not present	Males	-	2	1	1	1	1	1	-	7
	Females	1	1	1	3	2	2	2	-	12
2. Sputum present but not examined	Males	-	-	-	-	-	-	-	-	-
	Females	-	-	-	-	-	-	-	-	-
3. Sputum examined and tubercle bacilli found	Males	-	2	3	29	41	44	47	5	171
	Females	-	-	1	27	68	25	11	-	132
4. Sputum examined and tubercle bacilli never found	Males	-	-	1	4	7	5	4	1	22
	Females	-	-	2	8	9	11	4	1	35
	Total:	1	5	9	72	128	88	69	7	379
Non-Pulmonary.										
1. Abdominal	Males	1	-	2	1	1	1	-	-	6
	Females	-	1	1	2	3	-	1	-	8
2. Thoracic	Males	1	1	2	1	-	-	-	-	5
	Females	2	1	1	1	-	-	-	-	5
3. Spine	Males	2	5	4	1	-	1	-	-	13
	Females	1	1	3	2	1	-	1	-	9
4. Bones and Joints (exclusive of spine)	Males	2	3	3	3	3	2	-	-	16
	Females	-	5	5	4	4	2	-	1	21
5. Superficial glands	Males	2	4	1	-	-	-	2	-	9
	Females	2	2	3	5	4	1	1	-	18
6. Lupus	Males	-	-	-	1	2	1	-	-	4
	Females	-	-	-	-	1	3	5	2	11
7. Other parts or organs	Males	-	-	1	2	1	4	4	-	12
	Females	-	-	-	-	4	-	-	-	4
	Total:	13	23	26	23	24	15	14	3	141
Pulmonary and Non-pulmonary Total:		14	28	35	95	152	103	83	10	520

TABLE XIII - (C). NUMBER OF PERSONS WHO DIED FROM TUBERCULOSIS IN ABERDEEN DURING THE YEAR, WITH PARTICULARS AS TO PERIOD ELAPSING BETWEEN NOTIFICATION AND DEATH AND BETWEEN DISCHARGE FROM AN INSTITUTION AND DEATH.

	Pulmonary		Non-Pulmonary.	
	Males	Females	Males	Females
Number of persons who died from tuberculosis ...	58	33	12	9
Of whom -				
Not notified or notified only at or after death	4	4	3	5
Notified less than 1 month before death ...	3	1	1	3
" from 1 to 3 months " " ...	9	3	-	-
" " 3 to 6 " " " ...	5	3	-	-
" " 6 to 12 " " " ...	6	3	2	-
" " 1 to 2 years " " ...	8	4	2	-
" over 2 years " " ...	23	14	4	1
Number who died within 28 days after discharge from an institution	3	-	-	-
Number who died more than 28 days after discharge from an institution	13	9	2	-

Corrected for transferred deaths.

TABLE XIII. - (D). NUMBER OF CASES WHICH RECEIVED TREATMENT UNDER THE TUBERCULOSIS SCHEME IN SANATORIA OR OTHER INSTITUTIONS DURING THE YEAR ENDED 31st DECEMBER, 1934

		Number of Patients.					
		In Institutions on Jan. 1.	Admitted during the year.	Discharged during the year.	* Died in the Institutions.		In Institutions on Dec. 31.
		1.	2.	3.	4.	5.	6.
Pulmonary.							
x Adults ...	Males	46	63	46	23	5	35
	Females	36	46	42	12	2	26
Children ...	Males	1	4	2	-	2	1
	Females	3	2	2	1	1	1
Non-Pulmonary.							
x Adults...	Males	10	7	7	3	2	5
	Females	8	8	8	2	1	5
Children...	Males	11	36	37	2	3	5
	Females	8	35	33	1	4	5
Total:		123	201	177	44	20	83

* In column 4 are those who were in final residence 28 days or over.
In column 5 are those who were in final residence under 28 days.

x All patients of 15 years and upwards are classed as adults.

As to outdoor institutional treatment, 891 cases, all of which were of pulmonary tuberculosis except 307, received treatment at the Tuberculosis Institute at the City Hospital. The total number of attendances during the year was 7,280.

Insured Persons (National Health Insurance Act). Of the 107 cases of pulmonary tuberculosis notified, 59 per insured persons, 40 being male and 19 female. The notified cases of other forms of tuberculosis included 8 insured persons - 4 males and 4 females.

As stated in previous Reports, the Town Council have now assumed full financial responsibility for the treatment of insured tuberculous patients. During the year, the number of prescriptions passed for payment amounted to 1,715.

Food Supply. During 1934, food - chiefly milk - was supplied to an average daily total of 17 patients receiving dispensary or domiciliary treatment.

Supervision of Cases. The Tuberculosis Medical Officer had the assistance of three Tuberculosis Health Visitors or Nurses in the visitation and supervision of tuberculous cases throughout the year. The number of visits made by the Tuberculosis Health Visitors during the year under review was 7,102.

Size of House and Density of Occupancy. Table XIV. gives the number of cases occurring in houses of different sizes, along with the average number of inmates. In the case of pulmonary tuberculosis, the average number of inmates, including the patient, varied from 2.7 in one-roomed houses to 4.3 in four-roomed houses, and 4.6 in houses of 5 rooms and upwards. The average for houses of all sizes taken together was 4.3.

TABLE XIV. /

TABLE XIV. - ABERDEEN - TUBERCULOSIS - SIZE OF HOUSE IN RELATION TO NOTIFIED CASES AND REGISTERED DEATHS DURING 1934.

		1 room	2 rooms	3 rooms	4 rooms	5 rooms & up.	Institutional or not stated.	Totals for 1934.	Corresponding Totals for	
									1933.	1932.
Pulmonary Tuberculosis (Cases)	Male	7	18	17	7	5	7	61	69	90
	Female	8	18	6	4	3	7	46	59	50
Both Sexes ...	Cases	15	36	23	11	8	14	107	128	140
	Deaths	7	27	33	7	9	7	90	93	79
Average Number of inmates, including Patient.		2.7	4.8	5.1	4.3	4.6	...	4.3	3.6	4.3
Other Tuberculosis (Cases)	Male	3	11	7	1	-	1	23	26	38
	Female	4	9	9	3	1	2	28	29	49
Both Sexes ...	Cases	7	20	16	4	1	3	51	55	87
	Deaths	2	10	4	2	1	2	21	20	45
Average Number of inmates, including Patient.		2.3	5.9	5.4	5.3	5.0	...	5.1	4.8	5.3
[x]Houses in City at Census, 1931. Average Number of Inmates.		2.5	3.9	4.2	4.1	4.4	...	4.0	...	...

[x] Houses of 25 rooms and over are excluded.

In the cases of other forms of tuberculosis, the average ran from 5.9 for two-roomed houses to 5.3 for four-roomed houses, and 5.0 for houses of five rooms and upwards. The average for all houses was 5.1

As regards the position of the tuberculous cases in relation to room and bed accommodation at the time of notification, it was found that of the 107 cases of pulmonary tuberculosis, only 30, or 28 per cent., were occupying a separate bed in a separate room, and 15, or 14 per cent., had a separate bed but not a separate room. About 48 per cent. had neither a separate bed nor a separate room.

Loan of Beds. In order to facilitate the separation of the patient from the other members of the household, 15 beds or cots, with the necessary bedding, were given on loan to needful patients. On the last day of the year there were on loan 26 beds with bedding.

MATERNITY AND CHILD WELFARE SERVICES.

Infantile Mortality. During the year 1934, there were 235 deaths among children under one year of age, as compared with an average of 278 during the 1929-1933 quinquennium. The infant-mortality rate, expressed as deaths per 1,000 births, was 77 during 1934, which is the lowest rate yet recorded, the lowest one in previous years being 79 in 1933. The average rate during the preceding quinquennium was 87.

The infant mortality rate throughout Scotland in 1934 was 78 per 1,000 births. Among the principal towns in Scotland, Aberdeen appears third on the list, Edinburgh being first with a rate of 62 and Dundee second with a rate of 74.

The chief causes of mortality among infants in 1934, as appearing in Table XV. were prematurity, with 69 deaths, as against an average of 63 for the preceding quinquennium; and pneumonia and bronchitis with 49 deaths as against 73.

All the specific infectious diseases show a decrease in 1934 as compared with the preceding quinquennium. There were 8 deaths from whooping cough as against an average of 12 in the preceding five years; and 2 deaths from tuberculosis as against an average of 7. There were no deaths from measles in 1934 at this age-period.

Mortality at Pre-school period (1 to 5 years). At this age-period there were 80 deaths in 1934 as against an average of 92 in the preceding quinquennium. Deaths from pneumonia showed a considerable decrease in 1934, there being 14 as against an annual average of 28 in the preceding five years. As regards infectious diseases, diphtheria showed an increase, there being 10 deaths in 1934 as against an annual average of 4. Deaths from measles and whooping cough, taken together, were equal to the average.

In Table XVI. the causes of death under 1 year are somewhat differently grouped from those in Table XV. and death-rates are substituted for numbers of deaths.

In Table XVI. also, two interesting columns show the number of infants surviving at the end of one year from birth, and the proportions which the survivors bear to the population. This rate, which represents the net gain to the population, after the perils peculiar to the first year of life have been passed, was, in 1934, 16.3 per 1,000 of population, as compared with an average of 17.7 for the ten years 1924-1933. This rate is a more exact indication than the birth-rate of the real internal addition to the population.

Births. The figures of the births registered in Aberdeen during 1934 are analysed in detail in Chapter V. of this Report.

The particulars regarding the live-births and still-births occurring during the year are as follows:-

Attended by -	No. of Live Births.	No. of Still Births.	No. of Still Births per 1,000 Live Births.
Midwives	587	16	27.3
Maternity Hospital			
(a) In Wards.	690	99	143.4
(b) At Home..	205	5	24.4
Medical Practitioners.. ...	1719	60	34.9
Not attended at birth.. ...	-	-	-
	3201	180	56.2

The bodies of 22 still-born children or children who had died soon after birth were examined for spirochetes. None proved to be syphilitic.

TABLE XV. - CAUSES OF DEATH AMONG CHILDREN UNDER FIVE YEARS OF AGE - YEAR 1934.

Causes of Death	Age																	Average for preceding 5 years 1929-1933	
	First Year												Second to Fifth Years						
	First Four Weeks				First Three Mths.			The Four Quarters											
	0-1	-2	-3	-4	# 0-1	-2	-3	# 0-3	-6	-9	-12	Total	-2	-3	-4	-5	Total	0-1	1-5
Chickenpox												--					-	-	0.2
Measles												--	3	1		1	5	7	6
Scarlet Fever										1		1	1		1		2	0.4	2
Whooping Cough						1	2	3	1	2	2	8	6	2		1	9	12	8
Diphtheria												-	2	2	3	3	10	1	4
Erysipelas												-					-	2	0.2
Epidemic Cerebro-spinal												-					-		
meningitis												-			1	1	2	1	1
Tuberculosis of (a) Brain											1	1		2	1		3	4	7
Tuberculosis of (b) Abdomen												-		1			1	1	1
Tuberculosis of (c) Lungs											1	1			1		1	1	2
Tuberculosis of (d) Other forms												-		1		1	2	1	2
Meningitis										2		2	1				1	3	1
Hydrocephalus												-					-	0.2	0.2
Convulsions	3		1		5	1	1	7	3			10	1				1	12	1
Pneumonia					2	1	4	7	14	11	8	40	10	3	1		14	54	28
Bronchitis			1		2		3	5	2	1	1	9		1			1	19	3
Diarrhoea and Enteritis.			1	2	3	4	2	9	5	2	1	17	4		2		6	15	2
Other Digestive Diseases												-		1	2	4	7	4	4
Congenital Malformations	1	1			2	1		3	1			4					-	8	0.2
Congenital Heart.. ...	2				2	1		3		1		4					-	4	0.2
Prematurity	48	4	5	5	62	3	1	66	2	1		69					-	63	0.2
Atrophy, Debility and Marasmus	7	4	4	4	19	5	4	28	4			32					-	32	0.4
Atelectasis	8				8			8				8					-	8	-
Injury at Birth... ...	4	1			5		1	6			1	7					-	6	-
Syphilis												-					-	1	0.2
Burns and Scalds.. ...												-		1			1	1	3
Suffocation									2			2	1				1	4	-
Other Accidents... ...												-			2	3	5	1	7
Other Causes	7	1	3		11	1		12	5	2	1	20	4	2		2	8	14	9
All Causes	80	11	15	11	121	18	18	157	39	23	16	235	33	17	14	16	80	278	92
Average for preceding 5 years	76	14	16	7	115	27	22	165	49	33	31	278	49	19	13	11	92		

This column includes all deaths in preceding columns.

TABLE XVI. - ABERDEEN - INFANT MORTALITY. - Years 1924-1934.

(Corrected for transferred deaths).

Year.	No. of Births.	Births per 1,000 of Population.	Deaths of Infants under 1 year.	Deaths of Infants under 1 year per 1,000 Births.	No. of Survivors.	Survivors per 1,000 of Population.	Death-Rates Among Children Under 1 year of Age from Chief Causes per 1,000 Births.										Death-Rates from All Causes, per 1,000 Births, at Ages -		
							Prematurity, Congenital Defects, and Diseases of Early Infancy.	Dis. of Digest. System Wasting and Debility Convulsions.	Bronchitis and Pneumonia.	Common Zymotic Diseases				Tuberculosis.	Syphilis.	Suffocation.	Under 2 Weeks	Above 2 Weeks and under 6 Months	Above 6 Months and under 1 Year.
										Measles.	Whooping Cough.	Diphtheria.	Scarlet Fever.						
1934	3071	17.7	235	77	2836	16.3	33	19	16	0	3	0	0.3	0.7	0	0.7	30	34	13
1933	3019	17.6	238	79	2781	16.2	30	19	20	1	2	0	0	0.7	0	1	28	33	18
1932	3188	18.7	296	93	2892	17.0	33	18	22	4	7	0.3	0	2	0.6	1	29	41	23
1931	3231	19.2	292	90	2939	17.4	31	17	27	2	5	0	0.6	3	0	0.6	29	41	20
1930	3303	19.7	265	80	3038	18.1	24	18	21	3	3	0.3	0	1	0	2	23	38	19
1929	3112	18.7	297	95	2815	16.9	31	27	24	0	2	1	0	3	0.3	2	31	41	23
Aver. 1929-1933.	3171	18.8	278	87	2893	17.1	30	20	23	2	4	0.3	0.1	2	0.2	1.3	28	39	20
1928	3314	19.9	313	94	2999	18.1	27	29	17	6	5	0.3	0	2	0.3	2	30	40	24
1927	3182	19.3	334	105	2848	17.3	38	29	25	0.3	2	0	0	3	2	1	40	45	20
1926	3406	20.7	328	96	3078	18.7	30	31	17	2	3	1	0	4	1	1	27	44	25
1925	3390	20.8	368	109	3022	18.5	34	37	18	4	6	1	0	3	1	0.3	31	53	25
1924	3437	21.2	421	122	3016	18.6	33	36	22	6	8	1	0	3	2	2	33	57	32
Aver. 1924-1928	3346	20.0	353	105	2993	18.2	32	32	20	4	5	1	0	3	1	1	32	48	25
Aver. 1924-1933	3258	19.3	315	96	2943	17.7	31	26	21	3	4	0.5	0.1	3	1	1	30	43	23

Maternal Mortality. During the year under review, there were 16 deaths of women from causes associated with pregnancy or child-birth, including all deaths, whatever the precise cause, within four weeks after child-birth (or later if illness originated in the puerperium). Of these 16 deaths, 10 were classified by the Registrar General as due to pregnancy and child-birth.

All these deaths were inquired into by the Health Visitors or information regarding them was obtained from the attending practitioners, who co-operate in giving the desired information.

Year.	No. of Births (Corrected for Transfers)	Maternal Mortality				Puerperal Sepsis	
		Total No. of Deaths.	Rate per 1,000 Births.	Reg. Genl's Class-ificatn. Number.	Rate per 1,000 Births.	Number of Deaths.	Rate per 1,000 Births.
1934	3,071	16	5.2	10	3.3	6	2.0
1933	3,019	20	6.6	16	5.3	6	2.0
1932	3,188	25	7.8	24	7.5	14	4.4
1931	3,231	13	4.0	10	3.1	6	1.9
1930	3,303	20	6.1	15	4.5	4	1.2
1929	3,112	24	7.7	20	6.4	5	1.6
Average 1929-1933	3,171	20	6.4	17	5.4	7	2.2

It will be seen from the table that during 1934 there were 5.2 maternal deaths per 1,000 births; of which 3.3 were classified by the Registrar-General as due to pregnancy and child-birth, including 2.0 from sepsis. In the quinquennium 1929-1933, the corresponding rates were - 6.4; 5.4; and 2.2.

There were 2 deaths among the confinements attended by midwives. In 7 cases the patients were attended by general medical practitioners in their own homes and in 1 case by a doctor in a maternity home. In 5 cases the attendance was by public institutions and in 1 case (an abortion) there was no skilled attendance at time of confinement.

Three of the deaths followed abortion. In 3 cases death occurred before delivery took place. In 3 others, delivery took place prematurely. The remaining 7 deaths were due to or associated with full-time deliveries. Three patients died in their own homes, the remainder in institutions.

As far as can be ascertained from the records, the confinement which proved fatal was the first in 7 cases.

Report under Midwives (Scotland) Act, 1915.

The report for the year 1934 under the Midwives (Scotland) Act, 1915, has already been transmitted to the Central Midwives Board.

The number of Midwives who, during the year, intimated their intention to practise in the district was 11.

Home Visitation.

A record of the number of first visits and re-visits to infants under 1 year of age, to children in the 1-5 year period, and to expectant mothers, is here submitted:-

Infants under One Year.				Children One to Five Years.				Ante-Natal Cases.	
First Visits		Re-Visits		First Visits		Re-Visits		First Visits	Re-Visits
Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.		
2793	166	31,280	2449	977	96	6787	451	220	156
2,959		33,729		1,073		7,238		376	
36,688				8,311					

Voluntary Health Visitors' Report.

The Voluntary Health Visitors' Report, which is separately submitted, indicates the valuable contribution that is made to the work of Maternity and Child Welfare by the voluntary workers.

Ante-Natal Consultations.

The extent of the ante-natal work undertaken during the year is summarised as follows:-

	Maternity Hospital Ante-Natal Annexe.	City Hospital Ante-Natal Clinic.	Child Welfare Clinics.
Total Number of Attendances	3,584	310 + 100[*] + 97[X]	323
Total First Attendances ...	960	174 + 49 + 53	272

[*] Post-Natal Cases.
[X] Not Pregnant.

Post-Natal and other Consultations.

There were 1,994 post-natal consultations during the year, of which 884 were first attendances.

Child Welfare Consultations.

The extent of the work done at the Child Welfare Clinics is summarised as follows:-

(a) Total number of attendances -	(1) Under 1 year of age	6,236
	(2) Over 1 year of age	2,636
(b) Number of first attendances -	(1) Under 1 year of age	1,995
	(2) Over 1 year of age	1,277

Special Treatment Centres.

(1) Teeth. - The Dental Clinic provided the following services:-

(a) Number of Attendances - (1) Mothers 360 (283 cases)
(2) Children 603 (589 cases).

(b) Classified Summary of Conditions remedied:-

	Extractions	General Anaesthetics	Anaesthetic (Local)	Fillings	Scalings
(1)Mothers	1,977	354	4	2	0
(2)Children	2,277	601	0	0	0

(c) Number of Dentures supplied - Nil.

(d) Net cost of Dentures, less sums recovered - Nil.

(2) Eyes. - The Ophthalmic Clinic was utilised to the extent of providing treatment for 40 cases of strabismus.

(3) Ultra-Violet Light Clinic. (Duration of Clinic 5½ months).
Children under 5 years of age treated at City Hospital:-

Disease.	Cured.	Improved.	Stationary.	Worse.	TOTAL.
Rickets	0	28	0	0	28
Wasting and Debility	2	6	0	0	8
Adenopathy	1	2	0	0	3
Bronchitis	0	3	0	0	3
Burn Scar with Open Sore 3"x 1"	1	0	0	0	1
Total:	4	39	0	0	43

9.3% cure; 90.7% improvement.

Day Nursery.

The Day Nursery at Charlotte Street undertakes the main work under this/

this heading, and there is, in addition, a play centre at the Castlegate Child Welfare Centre, which is open daily from 2 to 5 p.m. The attendances and charges at the Charlotte Street Day Nursery are as follows:-

(a) Total Number of Attendances - 4,600
Fresh Admissions (1) Under 1 year, 28
(2) Over 1 " 50
Average Daily Attendance - 18.

(b) Charges made - 5d. per day for one child: 9d. per day for two children; 1/- per day for three children.

(c) Receipts for the year - £92. 17. 8.

Food and Milk.

During the year, milk was supplied to the following extent:-

MOTHERS:	(1) Nursing	134	... 143
	(2) Expectant	9	
CHILDREN:	(1) Under 1 year ...	212	... 268
	(2) Over 1 " ...	56	

Ophthalmia Neonatorum.

Ophthalmia Neonatorum is referred to in the sections of this Report dealing with infectious diseases and venereal diseases. The following additional information is submitted

Year.	Number of Registered Births.	Number of Notified Cases of Ophthalmia Neonatorum	Rate per 1,000 Registered Births
1934	3,194	102	31.9
Average 1929-33	3,297	62	18.8

Confinement Attended By:-	Case Notified By:-			
	Doctor	Midwife	Institution	Health Visitor.
Doctor:-	14	1	1	10
Midwife:-	0	20	0	4
Mat. Hosp:-	5	0	26	7
Mat. Dist:-	0	0	11	2
Other Instits:-	0	0	1	0

Number of cases in which infection was gonococcal - 7.

Thirty cases were treated in residential institutions; 39 as out-patients in other institutions; and 33 cases were treated at home.

In 100 cases a complete cure was obtained.

In 2 cases condition of eyes improved, but children died during treatment.

Maternity Hospital.

1. Pre-natal cases -

(a) Number of cases treated in Wards ... 369
(b) Number of deaths 0

2. Abortions -

Abortions not now admitted.

3 & 4. Number of Confinements -

(a) In Wards - 778
(b) In District - 210

Number of deaths -
(a) In Wards - 4. (b) In District - 1.

		In Wards.	In District.
5.	Number of infants born (1) Alive	690	205
	(2) Still	99	5
6.	Number of deaths of infants within 10 days	18	5.

Woodend (Municipal) Hospital.

1. Pre-natal cases -

   Number of cases treated 14

2. Abortions -

   Number of cases 1

3. Normal Confinements

   (a) Total No. (i) with medical attendance 64
   (ii) without medical attendance 0

   (b) No. of deaths - 1

4. Abnormal or complicated Confinements -

   (a) Total No. (i) instrumental deliveries 5
   (ii) other deliveries ... 7

   (b) No. of deaths - 1

5. Number of infants born (i) alive - 72; (ii) still - 6.
6. Number of deaths of infants within 10 days - 9.

Maternity Homes (Private).

1. Pre-natal cases -

   Number of cases treated 15

2. Abortions -

   Number of cases 4

3. Normal Confinements -

   (a) Total No. (i) with medical attendance 183
   (ii) without medical attendance 6

   (b) Number of deaths - 1.

4. Abnormal or complicated Confinements -

   (a) Total No. (1) instrumental deliveries 68
   (ii) other deliveries ... 35

   (b) Number of deaths - 2.

5. Number of infants born (i) alive - 277; (ii) still - 17.
6. Number of deaths of infants within 10 days - - 13.

Homes for Unmarried Mothers before and after confinement.

Unmarried mothers in their second or subsequent pregnancies are admitted to Loch Street Home. Unmarried mothers in their first pregnancy are admitted to Thorngrove Home. A total of 3 unmarried mothers was admitted to Loch Street Home, and 13 unmarried mothers to Thorngrove Home.

Hospitals for Sick Children.

The Marasmus Ward at the City Hospital provides 22 cots for infants suffering chiefly from nutritional disorders. In all, a total of 124 infants was admitted to this ward during the year.

A Ward at Woodend Hospital provides 14 cots for infants suffering chiefly from rickets and orthopaedic disabilities. In all, a total of 30 cases was admitted during the year.

Convalescent Homes.

Number of cases treated -	Thorngrove Home.	Loch Street Home.
Mothers	88	4
Children under 1 year. ...	217	3
Children over 1 year. ...	35	29
	340	36
Average duration of residence -		
Mothers	3 days.	24 days.
Children	56 days.	85 days.

Home-Helps.

9 Home-Helps were employed in the homes; average period of assistance, 30 days; cost	£19. 0. 0.
14 Home-Helps were employed for washing; average number of washings per patient, 5; cost.. ...	11. 11. 0.
Total Cost...	£30. 11. 0.

Treatment of Puerperal Fever and Pyrexia.

The following Table gives various particulars relating to the number of cases notified:-

	Puerperal Fever.	Puerperal Pyrexia.
(1) Number of Cases notified ...	91	22
(2) Number removed to City Hospital	86	11
(3) Total Number of Deaths ...	8	4
(4) Number of cases following instrumental delivery	5	2
(5) Number of Deaths occurring under heading (4)	1	2

From the information given under headings (1) and (2), it will be seen that, of the 91 cases of Puerperal Fever notified, 86 were removed to the Puerperal Wards of the City Hospital, and that, of the 22 cases of Puerperal Pyrexia notified, 11 were admitted to the City Hospital. No deaths from Puerperal Fever occurred at home, but a death from pneumonia - which was notified as Puerperal Pyrexia - occurred at the patient's home.

VENEREAL DISEASES SERVICES.

Venereal Diseases Statistics.

The statistical data (Tables XVII., XVIII.) of the incidence and treatment of venereal diseases at the Royal Infirmary and City Hospital are submitted for the year under review.

Attendances for Treatment.

During the year, a total of 790 new City cases attended for treatment at the Treatment Centres which are situated at the Aberdeen Royal Infirmary and at the Aberdeen City Hospital. Of these, 534 attended at the Infirmary Centre and 256 attended the City Hospital Centre. The average annual number of new City cases attending in the 1929-33 quinquennium was 774. The total number of attendances of City cases at the Infirmary Centre was 28,972, and the number of attendances at the City Hospital (mainly City cases) was 12,691, making a total of 41,663 attendances for the year. With regard to in-patients, in all 45 City cases were admitted in 1934, 33 being admitted to the Royal Infirmary and 12 to the City Hospital.

Ophthalmia Neonatorum.

A total of 102 cases was reported during 1934. The average annual number during the preceding ten years was 60.

VENEREAL DISEASES SERVICES.

TABLE XVII. - TREATMENT CENTRE AT ABERDEEN ROYAL INFIRMARY - CITY CASES.

Total Number of New Cases.

Year.	Total	Syphilis		Gonorrhoea		Soft Chancre		Non-specific Ven. Infectns.		Non V.D.	
		M	F	M	F	M	F	M	F	M	F
1934	534	73	44	201	40	8	0	57	24	57	30
1933	487	64	47	207	26	5	0	56	19	45	18
1932	486	76	35	205	25	8	0	45	21	47	24
1931	469	71	37	221	29	6	0	5	3	57	40
1930	428	54	38	221	19	7	1	6	1	59	22
1929	498	76	48	254	24	6	0	3	0	52	35
Average 1929-33. (5 yrs.)	473	68	41	221	25	6	0.2	23	9	52	28

In-Patient Cases.

1934	33	12	7	6	7	0	0	0	1	0	0
1933	45	12	9	12	7	2	0	3	0	0	0
1932	33	10	7	6	9	1	0	0	0	0	0
1931	42	11	7	10	10	0	0	0	3	1	0
1930	22	3	5	9	4	0	0	1	0	0	0
1929	46	10	6	15	6	1	0	1	4	1	2
Average 1929-33 (5 yrs.)	36	9	7	10	7	0.2	0	1	1	0.4	0.4

Attendances of All Cases.

1934	28972	5677	4075	14095	3452	51	0	326	1020	109	167
1933	28110	5444	4074	13638	3383	30	0	397	922	110	112
1932	26341	4392	3582	13930	3730	55	0	224	209	121	98
1931	23628	3743	3228	13198	2288	47	0	464	412	149	99
1930	27979	3687	3706	16722	2494	8	0	713	490	99	60
1929	27308	4076	3383	14328	4070	7	0	809	512	71	52
Average 1929-33 (5 yrs.)	26672	4268	3595	14363	3193	29	0	521	509	110	84

LABORATORY EXAMINATIONS.

(a) Total Number.

Year.	Total.	Syphilis.				Gonorrhoea	
		Wassermann and Kahn.		Spirochete.		Gonococcus.	
		Positive	Negative	Positive	Negative	Positive	Negative.
1934	7415	1073	4367	11	43	495	1426
1933	7472	979	4509	10	15	470	1489
1932	7134	957	4319	7	40	433	1378
1931	6632	953	3949	13	39	341	1337
1930	7568	1206	4429	13	45	342	1533
1929	7373	1214	4059	21	45	375	1659
Average 1929-33.	7236	1062	4253	13	37	392	1479

(b) Included in the foregoing Table (a) are the following numbers of specimens sent in by private practitioners.

1934	106	5	57	1	1	21	21
1933	107	8	65	1	0	20	13
1932	110	6	81	0	0	14	9
1931	167	18	105	0	2	11	31
1930	325	60	170	1	6	27	61
1929	330	50	142	1	1	25	111
Average 1929-33	208	28	113	1	2	19	45

(c) Included in Table (a) are also the undernoted numbers of bodies of infants, mostly still-born, examined for Syphilis.

Year.	Number of Bodies Examined.	Number found to contain the Spirochete of Syphilis.
1934 ...	22	0
1933 ...	17	1
1932 ...	34	2
1931 ...	23	1
1930 ...	23	0
1929 ...	23	1
Average 1929-33 ...	24	1

TABLE XVIII. - TREATMENT CENTRE AT ABERDEEN CITY FEVER HOSPITAL

Total Number of New Cases(City).

Year.	Total.	Syphilis		Gonorrhoea		Soft Ch.		Non-specific Ven.Dis.		Non V.D.	
		M	F	M	F	M	F	M	F	M	F
1934	256	19	21	93	39	2	0	22	11	28	21
1933	244.	19	9	93	22	4	1	32	18	29	17
1932	268	24	20	116	25	4	0	21	9	32	17
1931	332	32	22	163	40	4	0	1	3	30	37
1930	343	51	36	150	51	2	0	0	2	25	26
1929	320	46	26	137	60	0	0	3	2	21	25
Average 1929-33	301	34	23	132	40	3	0.2	11	7	27	24

In-Patient Cases(City).

1934	12	3	3	4	2	0	0	0	0	0	0
1933	25	8	5	11	1	0	0	0	0	0	0
1932	23	8	5	7	3	0	0	0	0	0	0
1931	29	6	4	10	5	0	0	1	2	0	1
1930	29	7	4	4	10	0	0	0	2	0	2
1929	43	3	10	12	14	0	1	1	2	0	0
Average 1929-33	30	6	6	9	7	0	0.2	0.4	1	0	1

Attendances of All Cases.[x]

1934	12691	1526	1014	7789	1847	9	0	132	287	37	50
1933	13203	1852	1216	7527	1486	5	0	559	390	62	106
1932	16015	2127	1383	8652	2966	25	0	337	344	60	121
1931	14889	1869	1382	8504	2486	51	0	162	277	40	118
1930	17707	1837	1379	9220	4258	12	0	157	248	144	452
1929	13566	1045	951	7255	3443	4	0	273	221	59	315
Average 1929-33	15076	1746	1262	8232	2928	19	0	298	296	73	222

[x] Including Cases from Outwith the City.

Laboratory Examinations.

Year.	Total.	Syphilis.				Gonorrhoea.	
		Wassermann and Kahn		Spirochete		Gonococcus.	
		Positive	Negative	Positive	Negative	Positive	Negative
1934	6326	732	3480	2	16	275	1821
1933	7195	827	4102	1	15	360	1890
1932	8999	1134	4979	1	18	422	2445
1931	7652	1118	4235	2	20	285	1992
1930	7761	1002	3735	1	14	300	2709
1929	6208	884	2992	8	25	313	1986
Average 1929-33	7563	993	4009	3	18	336	2204

BLIND PERSONS SERVICES.

Maintenance during Training.

During the year, 4 persons applied for and received from the Town Council, assistance towards their maintenance during the period of technical training. At the end of December, 1934, 22 persons in all were receiving such assistance.

Medical Certification of Blindness.

During the year 1934, 29 persons belonging to the City were examined at the Blind Persons Clinic or at their own homes and 20 were re-examined.

The following statistics relative to the year 1934-35 are herewith submitted:-

TABLE XIX. - (A) CASES REGISTERED FOR FIRST TIME DURING YEAR ENDED 31st MARCH, 1935. AGES AT TIME OF REGISTRATION AND PROBABLE YEAR OF ONSET OF BLINDNESS.

Probable Year of Onset.	AGE AT REGISTRATION.												TOTAL.		
	0-4		5-15		16-39		40-49		50-69		70 +				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T.
Prior to 1931	-	-	1	-	-	1	2	1	1	-	-	2	4	4	8
1931	-	-	-	-	-	-	-	1	-	-	-	1	-	2	2
1932	-	-	-	-	-	-	-	-	-	-	1	1	1	1	2
1933	-	-	-	-	1	-	-	-	1	-	-	-	2	-	2
1934	-	-	-	-	-	-	-	-	-	1	-	1	-	2	2
1935	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(B) CASES REGISTERED FOR FIRST TIME DURING YEAR ENDED 31st MARCH, 1935: CERTIFICATION OF BLINDNESS.

Certified by			Cases Registered without Med. examination.	TOTAL.
Ophthalmic Surgeons attached to Clinics.	Other Ophthalmic Surgeons.	Med. Practitioners Other than Ophthal. Surgeons.		
16	-	-	-	16

(C) NUMBERS ACCORDING TO DIFFERENT AGE GROUPS OF ALL BLIND PERSONS ON THE REGISTER.

0-4		5-15		16-39		40-49		50-69		70 +		TOTAL		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T.
-	-	6	-	32	39	24	10	62	60	21	39	145	148	293

(D) CLASSIFICATION OF BLIND SCHOOL CHILDREN
(5 - 15 years inclusive)

	Normal		Mentally Sub-normal		Physically Defective		Both Mentally Sub-normal & Physically Defective.		TOTAL.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T.
At School - Blind Institution	5	-	-	-	-	-	-	-	5	-	5
Education Authority School	-	-	-	-	-	-	-	-	-	-	-
Not at School ...	-	-	1	-	-	-	-	-	1	-	1
Total	5	-	1	-	-	-	-	-	6	-	6
Number in each total who are deaf ...	-	-	-	-	-	-	-	-	-	-	-

(E) EMPLOYMENT,ETC., CONDITION OF BLIND PERSONS OF 16 YEARS AND OVER.

EMPLOYED								Unemployed and Untrained but with some capacity.				Unemployable.		TOTAL.		
In Institutions for the Blind.						Outwith Institutions for the BLIND.		Probably Trainable (under 50 years of age).		Untrainable but Employable in occupation of some sort.						
Undergoing Industrial Training.		Undergoing Secondary or Professional Education.		In Workshops												
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T.
13	9	1	1	35	15	8[x]	2	-	-	-	-	82	121	139	148	287

x Including 3 under Home Workers' Scheme.

MENTAL HEALTH SERVICES.

Kingseat Mental Hospital.

Under the provisions of the Local Government (Scotland) Act, 1929, the administration of the Kingseat Mental Hospital was transferred to the Public Health Committee of the Town Council.

On 31st December, 1934, there were on the Register of Certified Patients 366 male and 320 female inmates, a total of 686, being an increase of 3 males and a decrease of 1 female as compared with the corresponding figures for the previous year, viz., 363 males and 321 females. Of these 686 patients, 27 were private (Service) patients, the cost of whose maintenance and treatment is met by the Ministry of Pensions. At the end of 1934 there were 23 Voluntary Patients in residence - 3 more than in 1933.

Table XX. shows the admissions, re-admissions, discharges and deaths of Certified Patients during the year ended 31st December, 1934. In Table XXI. information is given as to the admissions, re-admissions, discharges and deaths of Certified Patients from the date of the opening of the Hospital, 16th May, 1904, until the end of 1934.

Admissions. A total of 80 patients was admitted under certificate - 42 males and 38 females. The following statement shows the types of Mental Disorder in the admissions of Certified Patients during the year:-

Form of Mental Disorder.	Admissions		
	M.	F.	TOTAL.
Idiocy or Imbecility -			
(a) With Epilepsy	1	-	1
(b) Without Epilepsy	1	2	3
(c) Moral	-	-	-
Insanity occurring in later life.			
1. Epileptic Insanity	1	4	5
2. General Paralysis	4	3	7
3. Infect.Exhaustion Psychosis	4	4	8
4. Mania -			
(a) Simple	2	-	2
(b) Acute	-	4	4
(c) Chronic	-	-	-
5. Melancholia -			
(a) Simple	-	1	1
(b) Acute	2	4	6
(c) Chronic	-	1	1
6. Alternating Insanity	-	-	-
7. Paranoia	7	2	9
8. Dementia - /			
c/f	22	25	47

Form of Mental Disorder.	Admissions		
	M.	F.	TOTAL.
b/f	22	25	47
8. Dementia -			
(a) Praecox	9	6	15
(b) Senile	4	4	8
(c) Organic	2	1	3
(d) Alcoholic	-	-	-
9. Paraphrenia	4	2	6
10. Not Insane	1	-	1
	42	38	80

Seventeen of these cases had at some previous date been inmates either of this or of another mental hospital. In 18 cases heredity was a predisposing cause of the mental disorder. In 9 patients congenital mental deficiency was present, together with some form of psychosis. Syphilis was the causal factor in 8 patients, and 6 were epileptic.

Discharges. A total of 37 patients was discharged. Of these, 30 recovered - 14 males and 16 females - giving a recovery rate - calculated on the number of admissions for the year - of 37.5 per cent. Seven patients were discharged unrecovered, 4 of whom were relieved and 3 not improved.

Deaths. A total of 41 Certified Patients died, giving a percentage of 5.9 on the average number resident during the year. This is considerably lower than the average yearly death-rate, which during the last 30 years was 8.6. The causes of the 41 deaths were as follows:-

Diseases of the Heart and Blood Vessels ...	22
Pulmonary Tuberculosis	6
Epilepsy	5
General Paralysis of the Insane.	5
Exhaustion from Acute Psychosis.	2
Pulmonary Embolus	1
	41

Voluntary Patients. During the year, 7 voluntary patients were admitted; 4 were discharged, of whom 1 recovered, 2 improved and 1 was not improved. There were no deaths among this class of patient.

Service Patients. There were no changes among the service patients during the year, the number treated being 27. The cost of the maintenance and treatment of these patients is met by the Ministry of Pensions. The hospital was visited by Dr. L. Forward, a Medical Officer of the Ministry, on 4th January, 1934. He reported favourably on the care and treatment of these patients and on the hospital generally.

The Dentist performed a great deal of useful work, and treated in all, 142 patients, including all the newly admitted patients.

The usual lectures and demonstrations were given by the matrons and medical staff.

At the Preliminary Examination of the Royal Medico-Psychological Association for proficiency in mental nursing, 13 nurses and 4 attendants passed; 2 nurses passed the Final Examination of this Association.

The statutory visits to Kingseat Mental Hospital by H.M.Commissioners of the General Board of Control were made by Dr. Hamilton Marr on 4th May and by Dr. J.P. Sturrock on 27th September.

TABLE XX. - KINGSEAT MENTAL HOSPITAL.

Admissions, Re-Admissions, Discharges and Deaths of Certified Patients during the year ending 31st December, 1934.

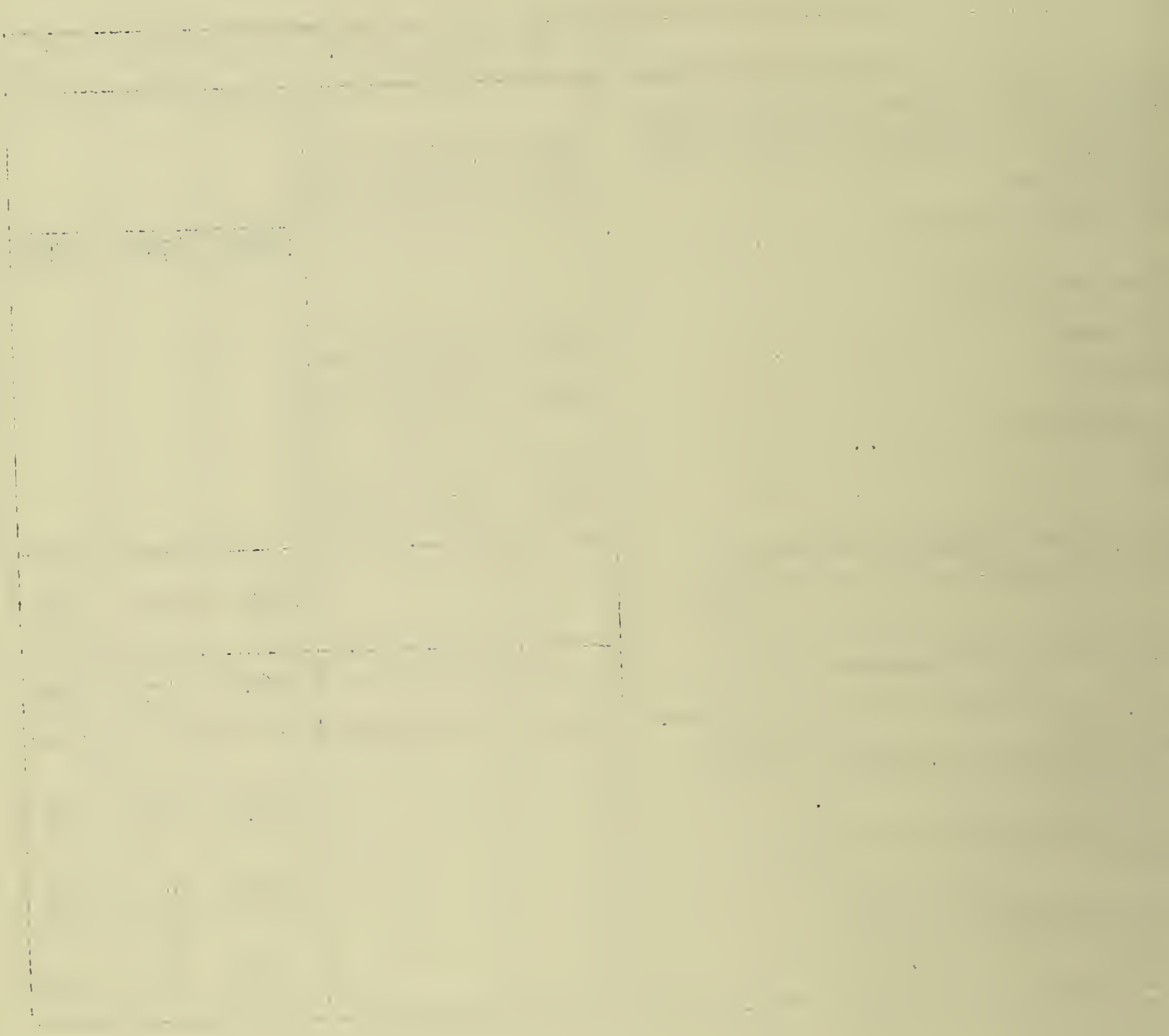
	M.	F.	T.	M.	F.	T.
In the Hospital, 31st December,1933.	363	321	684			
Absent on Probation	...	...	...			
Absent on Pass						
Total on Register				363	321	684
Cases Admitted -						
First admissions	35	33	68			
Not first admissions... ...	7	5	12			
Total cases admitted during the year				42	38	80
Total cases under care during the year				405	359	764
Cases Discharged -						
Recovered	14	16	30			
Relieved	2	2	4			
Not Improved	1	2	3			
Died	22	19	41			
Total Cases discharged and died during the year				39	39	78
Remaining in the Hospital, 31st December, 1934	365	320	685			
Absent on Probation	...	...	...			
Absent on Pass	1	-	1			
Total on Register				366	320	686
Average daily number on Register during the year				369	318	687
* Persons under care during year				...	...	...
Persons admitted				42	38	80
Persons recovered				14	16	30
Transferred to other asylums..				1	2	3
Transferred from other asylums				1	4	5

*Persons, i.e., separate persons, in contradistinction to cases, which may include the same individual more than once.

TABLE XXI. - KINGSEAT MENTAL HOSPITAL.

Admissions, Re-Admissions, Discharges and Deaths of Certified Patients from the opening of the Hospital, 16th May, 1904, to 31st December, 1934.

	M.	F.	T.	M.	F.	T.
Persons admitted during period from 16th May, 1904, to 31st Dec., 1934.	1673	1547	3220			
Re-Admissions	275	330	605			
Total Cases admitted				1948	1877	3825
Discharged Cases -						
Recovered	590	624	1214			
Relieved	223	192	415			
Not Improved	40	31	71			
Died	729	710	1439			
Total cases discharged and died since the opening of the Hospital.				1582	1557	3139
Remaining on 31st December, 1934.				366	320	686
Average number on register during the period				282	269	551
Cases transferred from other asylums				334	325	659
Cases transferred to other asylums				96	67	163



PORT SANITARY SERVICES.

Trade and Shipping.

The total foreign and coastwise shipping entering the Port during 1934 was 18,990 vessels, of which 1,420 were foreign. The total tonnage of all vessels was 2,482,492, of which 391,083 was foreign.

Medical Inspection of Shipping.

The amount of shipping entering the Port during the year, distinguished as foreign and coastwise, together with the number of ships inspected and the nature of the defects and the number of notices issued in connection therewith, are set forth in the following table:-

		Number of Vessels.	Tonnage of Vessels.	Number Inspected		Number Reported to be Defective.	Number of Notices Issued.
				By the Medical Officer of Health	By the Sanitary Inspector		
Foreign	Trading	320	295,667	19	250	2	2
	Fishing	1,100	95,416	-	1	-	-
Total Foreign.		1,420	391,083	19	251	2	2
Coastwise	Trading	2,135	657,417	-	27	-	-
	Fishing	15,435	1,433,992	-	5	2	2
Total Coastwise		17,570	2,091,409	-	32	2	2
Total Foreign and Coastwise		18,990	2,482,492	19	283	4	4

It will be seen that of the 18,990 vessels entering the Port, 16,535 were fishing vessels. In general, it may be said that the danger of fishing vessels importing infectious disease is largely confined to vessels from English or German ports introducing smallpox or other infectious diseases from these countries.

Twelve seamen, 8 suffering from scabies, 1 from pneumonia, 1 from diphtheria and 2 from tonsillitis, were admitted to hospital for treatment in 1934, and the necessary disinfection was carried out in each case.

Rat Destruction: Precautions against Plague and Infective Jaundice.

Trapping of rats within the area of the Harbour Commissioners is regularly carried out, and these rats are submitted to laboratory examination for plague and infective jaundice. In all, 116 rats were thus examined during 1934. No laboratory evidence of Plague was obtained but 24 rats showed the presence of L.icterohaemorrhagiae.

The following measure of work on rat destruction carried out by the two whole-time rat-catchers of the Health Department is submitted:-

Number of pieces of poison bait laid ...	139,469
Number of pieces of poison bait eaten ...	30,624
Dry poison bait (mice) laid	243 pieces
Dry poison bait (") eaten	14 "

In addition, liquid poison in the form of red squill was sold by the Health Department to occupiers of business premises and dwelling-houses within the City. The quantity sold amounted to fully 21 gallons, sufficient for the making up of 41,160 baits.

No ships arrived in Aberdeen from plague-infected ports.

Under the Public Health (Deratisation of Ships) Regulations (Scotland), 1929, 149 ships were inspected during the year, and 13 Deratisation Exemption Certificates were issued.

VETERINARY SERVICES.

The activities of the Health Department that are subject for discussion under "Veterinary Services" relate mainly to the control of food supplies and the administration of the Diseases of Animals Acts and Orders. The bulk of the work under the Diseases of Animals Acts consists of the supervision of the animals landing from Ireland. These have to be examined weekly at the Marts and licences have to be issued for their movement. Those remaining in the Burgh have to be consigned to specially licensed fields where they are detained until a specified time has elapsed. Weekly visits have to be made to these fields in order to see that no cattle dealer is attempting to avoid the regulations.

Frequent visits have also to be made to the railway sidings and lairages attached to the boats carrying livestock.

Milk Control.

Milk and Dairies (Scotland) Act, 1914.

No administrative difficulties in the operation of this Act were encountered during the year. The number of registered producing dairies within the City is now 5, a decrease of 3 from the previous year.

Inspection of Cows and Dairy Byres.

The average number of cows kept in the five dairy premises was 63. The premises were visited quarterly and the cows examined. The animals in all the dairies were in very good condition and well cared for. The hygienic conditions were very satisfactory and the premises were suitable and were maintained in a satisfactory condition.

Five cases of sub-acute mastitis were dealt with and two cases of suspected tuberculous mastitis were also encountered, but the samples were negative on bacteriological examination. The milk from the affected cows was discarded until the condition disappeared, but owing to the limited accommodation, it was impossible to isolate the affected animals.

Inspection of Cattle in Markets.

The Auction Marts were inspected regularly each week and all the cows exposed for sale were examined. One case of Tuberculosis within the meaning of the Tuberculosis Order of 1925, was found and dealt with under the Order.

As a whole, the type of cow sold in the Markets in Aberdeen is very satisfactory, most of them being Irish in origin and any cows found to be unfit for travel are ordered to be slaughtered locally.

Bovine Tuberculosis.

One case of Tuberculosis was found on clinical examination of the dairy herds and the cow was condemned and dealt with under the Tuberculosis Order of 1925.

No action was necessary under Sections 13 and 14 of the Milk and Dairies (Scotland) Act, 1914.

No animal was tested with tuberculin.

Certified Milk.

No licences have been issued for the production of Certified or Grade A (T.T.) Milk. During the year, 16 firms of milk retailers had their licences to retail Certified Milk renewed.

Pasteurised Milk.

The Northern Co-operative Society, Limited, are licensed to pasteurise milk in their premises at Berryden Road and to sell pasteurised milk in 33 branch shops belonging to the Society. A renewal licence was also granted to the Aberdeen and District Milk Agency, Limited, to pasteurise milk in their premises at Lilybank, Kittybrewster. Eight applications for renewal were also received from other retailers, while eleven retailers were licensed. The applications were granted for the year.

Inspection of Meat.

Fat Stock Markets.

Regular examination of cattle exposed at the various markets was carried out as formerly, particular attention being paid to fat cows. A number of these so-called fat cows were detained for local slaughter on account of injury and disease. The disease for which the animals were detained for local slaughter was chiefly tuberculosis. No animals, other than cows, were detained for local slaughter.

Slaughterhouses.

There are four private slaughterhouses in operation within the Burgh, and two of these belong to the Flesher Incorporation. As has been pointed out in previous Reports, it is extremely difficult to secure adequate inspection of meat in four widely separated slaughterhouses.

The number and class of animals killed in slaughterhouses during the year were as follows:-

Cattle.					Sheep.		Pigs.
Oxen	Heifers	Cows	Bulls	Calves	Sheep	Lambs	
31,262	22,556	608	124	13	144,683	3,151	5,542

The following table gives the number of carcases inspected and the weight of meat seized as unfit for human food in these slaughterhouses during the year:-

	Oxen	Bulls	Cows	Heifers	Calves	Sheep	Pigs
Number of carcases inspected	x	124	608	x	13	x	5,542
Number of carcases seized wholly -							
(1) For Tuberculosis ...	53	-	69	45	2	-	14
(2) For other diseases ...	9	-	31	2	1	38	9
Number of carcases of which portions were seized -							
(1) For Tuberculosis ...	188	5	53	193	1	-	142
(2) For other diseases ...	28	-	27	12	1	26	27
Total weight of meat seized.	91,533 lbs.	1,732 lbs.	70,589 lbs.	72,704 lbs.	422 lbs.	1,953 lbs.	5,155 lbs.

x Accurate figures as to the number of oxen, heifer and sheep carcases inspected are not available. Every ox, heifer or sheep carcase showing evidence of disease is, of course, thoroughly examined, and all carcases of bulls, cows, calves and pigs are inspected.

Particulars are given below regarding the carcases seized wholly for diseases other than tuberculosis:-

Disease.	Oxen	Bulls	Cows	Heifers	Calves	Sheep	Pigs
Actinomycosis	1	-	-	-	-	-	-
Neoplasms	-	-	1	-	-	-	-
Pyaemia	1	-	-	-	-	1	-
Septicaemia	-	-	1	1	-	1	-
Septic Mastitis	-	-	6	-	-	2	-
Septic Metritis	-	-	7	-	-	-	-
Septic Peritonitis	1	-	6	1	-	2	2
Septic Pericarditis	1	-	-	-	-	-	-
Erysipelas	-	-	-	-	-	-	2
Dropsy	1	-	2	-	-	10	1
Nephritis	1	-	1	-	-	-	-
Jaundice	1	-	3	-	-	-	-
Decomposition	1	-	2	-	-	14	3
Extensive bruising	-	-	2	-	-	7	-
Fevered or badly bled	1	-	-	-	-	1	-
Joint Ill	-	-	-	-	1	-	-
Rickets & Malnutrition	-	-	-	-	-	-	1
Total:	9	-	31	2	1	38	9

Meat Marts.

There are two large wholesale meat marts in Aberdeen to which carcases are consigned from County Districts. As a routine, all such carcases are inspected by the Meat Inspector in Aberdeen, and the following table gives the number of carcases and the weight of meat seized as unfit for human food in these marts:-

	Oxen	Bulls	Cows	Heifers	Calves	Sheep	Pigs
Number of carcases seized wholly -							
(1) For tuberculosis ...	4	1	2	6	-	-	3
(2) For other diseases..	10	-	11	6	-	84	10
Number of carcases of which Portions were seized -							
(1) For Tuberculosis ...	7	-	9	7	-	-	7
(2) For other diseases..	14	-	36	8	-	6	14
Total weight of meat seized	7,320 lbs.	586 lbs.	10,532 lbs.	4,554 lbs.	- lbs.	4,259 lbs.	2,615 lbs.

Every seizure made was by consent of the owner of the unfit food and on no occasion were legal proceedings with regard to unfit food necessary.

Slaughter of Animals (Scotland) Act, 1928.

There were no prosecutions under the above Order during 1934.

During the year, 90 licences were issued for the use of the mechanically operated instrument.

Diseases of Animals Acts.

The routine work necessary under the various Acts and Orders was carried out.

Control of Other Foods.

In addition to the control of milk and milk food products, and of meat, the Health Department continues an extensive supervision of other foods. Thus, the Fish Market is visited daily, and the quantity of fish destroyed as unfit for human food in 1934 was 9,560 lbs., as compared with 3,900 lbs. in 1933. The sale of fruit and vegetables, both wholesale and retail, is also under intensive supervision. So also considerable attention continues to be paid to the inspection of tinned foods, and all factories where such articles are prepared are regularly visited. Provision curing yards, wholesale warehouses, and shops are also subjected to routine visitation.

LABORATORY SERVICES.

The following statement gives in detail the number and results of examinations for the City of Aberdeen (including City Hospital and Woodend Hospital) during the year 1934.

	Positive	Negative	Total	Grand Total.
Diphtheria:				
Throat, nose and ear swabs	1,967	15,567	17,534	17,534
Tuberculosis:				
Sputum	901	2,000	2,901	
Pus	4	61	65	
Faeces	2	16	18	
Urines	6	108	114	
Cerebro-spinal fluids	8	50	58	
Pleural fluids	2	93	95	3,251
Typhoid Fever:				
Blood cultures	3	50	53	
Widals	9	84	93	
Faeces	52	76	128	
Urines	6	66	72	
Pus	0	1	1	
Bile	0	1	1	
Abdominal fluid	0	1	1	349
Paratyphoid/		Carry Forward...		21,134

	Positive	Negative	Total	Grand Total
Brought Forward				21,134
Paratyphoid A. B. and C:				
Blood cultures	3	9	12	
Widals	8	262	270	
Faeces	44	40	84	
Urines	3	31	34	
Gall Bladder	1	0	1	
Duodenal contents	2	0	2	403
Bacillary Dysentery:				
Faeces	107	700	807	807
Food Poisoning:				
Blood cultures	2	3	5	
Blood agglutinations	2	2	4	
Faeces	16	13	29	
Urines	3	2	5	
Food stuffs	0	5	5	
Miscellaneous	0	5	5	53
Puerperal Fever:				
Blood cultures	37	188	225	
Pus	159	21	180	405
Undulant Fever:				
Blood cultures	0	3	3	
Agglutinations	8	86	94	
Faeces	0	1	1	
Urines	0	2	2	100
Venereal Diseases:				
Wassermann Reactions	362	1,795	2,157	
Kahn Tests	370	1,685	2,055	
Gonococcal examinations	275	1,821	2,096	
Spirochaetes	2	16	18	6,326
Biochemical Examinations:				
Blood sugar			249	
Blood urea			171	
Urine sugar			198	
Urine urea			16	
Faeces for blood			44	
Van den bergh test			6	
Blood cholesterol			1	
Test meals			178	
Urine for bile			12	
Miscellaneous			26	901
Chemical Examinations:				
Paint samples			6	
Oil samples			7	
Soap samples			2	15
General:				
Blood counts			403	
Differential cell counts			395	
Blood cultures (various)			397	
Faeces for organisms			6	
Faeces for protozoa			22	
Malaria	2	9	11	
Histological specimens			59	
Ophthalmia neonatorum	7	240	247	1,540
Carry Forward				31,684

Sputum/

	Positive	Negative	Total	Grand Total
Brought Forward				31,684
General (Contd.)				
Sputum for organisms			179	
Pus for organisms			512	
Throat, nose and ear swabs for organisms			1,088	
Eye swabs for organisms			124	
Teeth for organisms			11	
Cerebro-spinal fluids (other than tuberculosis)			119	
Urines for bacteriological examination			262	
Urines for pathological examination			2,588	
Vaccines			112	
Pleural fluids (not tuberculosis)			4	
Autopsies			16	
Blood grouping			9	
Hair for ringworm			1	
Animal specimens			4	
Urine for lead			1	
Nasopharyngeal swabs for meningococci			30	
Pus for B.actinomycosis			2	
Miscellaneous			22	5,084
Waters, Food & Drug Samples:				
Bacteriological examination of waters			271	
Chemical examination of waters			2	
Swimming bath waters			102	
Bacteriological examination of milks			68	
All samples analysed under the Sale of Food and Drugs Acts and Public Health Regulations			1,505	1,948
Animal Inoculations:				
Guinea pigs inoculated with milk deposits for tubercle bacilli			212	
Guinea pigs inoculated with human material for tubercle bacilli			63	
Guinea pigs inoculated with human material for Br.abortus			1	
Mice used in typing of pneumococci			211	
Guinea pigs inoculated for diphtheria virulence test			7	
Guinea pigs inoculated with human material for L.icterohaemorrhagiae			58	
Guinea pigs inoculated with animal emulsions for L.icterohaemorrhagiae			26	
Guinea pigs inoculated with waters for L.icterohaemorrhagiae			16	
Mice inoculated with pus for B.tetani			2	596
L.icterohaemorrhagiae:				
Blood agglutinations	10	36	46	
Urines	2	1	3	49
				39,361

In addition to the above examinations for the City of Aberdeen, 16,931 examinations were carried out for the North-Eastern Counties within the Laboratory Services Scheme.

CHAPTER V.

STATISTICAL COMMENTARY.

POPULATION.

The population of the City (including the inmates of Parish Hospital and Kingseat Mental Hospital chargeable to Aberdeen) at the middle of the year was 173,215. This estimate is based on the census population for 1931; and the subsequent increase or decrease is calculated by adding the excess of births over deaths and adding or subtracting the loss or gain of population due to emigration and immigration.

The accompanying table gives the percentage and number of population at each of the principal age-periods.

TABLE XXII. - ABERDEEN - POPULATION AT VARIOUS AGE-PERIODS - 1934.
(As estimated from Proportions at Census of 1931).

	Under 1 yr.	1 and under 5 yrs.	5 and under 15 yrs.	15 and under 25 yrs.	25 and under 45 yrs.	45 and under 65 yrs.	65 yrs. and upwards	All Ages.
Percentage of Population at each age (according to census) 1921	2.35	6.66	19.41	20.00	27.00	18.42	6.16	...
1931	1.75	6.81	17.22	18.65	28.51	19.81	7.25	...
Estimated Population at each age-period in 1934	3,031	11,796	29,827	32,304	49,385	34,314	12,558	173,215

BIRTHS.

(TABLE XXIII.)

The total number of births during the year 1934, corrected for transfers, was 3,071 (2,856 legitimate and 215 illegitimate), equivalent to a rate of 17.7 per 1,000 of the population, as against a rate of 17.6 per 1,000 in 1933. The average rate for the 1929-1933 quinquennium was 18.8.

Proportion of Males to Females: The number of male infants to every 100 female infants, corrected for transfers, during 1934 was 95, as compared with 106 for 1933.

Illegitimate Births: In 1934, the number of illegitimate births after correction for transfers, was 215, and amounted to 7.0 per cent. of the total births. The average rate for the 1929-1933 quinquennium was 8.0.

Still-Births: In 1934, the number of still-births was 180, and amounted to 56 per 1,000 registered births. In 1933, the rate was 52.

MARRIAGES.

(TABLE XXIII.)

During the year 1934, there were 1,683 marriages within the City, equivalent to a rate of 9.7 per 1,000 of the population as against 8.9 in 1933. The average rate for the 1929-1933 quinquennium was 9.0.

Residence: In 1934, 1,199 of the males married were ordinarily resident in/

in Aberdeen, the remaining 484 coming from outwith the City. As regards the females, 1,284 were ordinarily resident in the City, and 399 lived outside the City.

Status: Of the 1,683 marriages in 1934, the persons married included 134 widowers and 65 widows.

DEATHS.

(TABLE XXIII.)

The total number of deaths during 1934, corrected for transfers, was 2,165, equivalent to a death-rate of 12.5 per 1,000 of the population. For the quinquennium 1929-33, the average annual number of deaths was 2,277 with a rate of 13.4.

The Average Age at Death: Of all persons dying during 1934, the average age at death was 52.5 years. In the preceding quinquennium, it was 51.3 years.

Excess of Birth-rate over Death-rate: In Table XXIII. will be found a column giving the excess of the birth-rate over the death-rate since the commencement of registration. The excess in 1934 was 5.2. For the quinquennium 1929-33, the excess was 5.4. The usual excess of birth-rate over death-rate for many years prior to 1911 was about 11 to 14.

ANALYSIS OF THE DEATH-RATE.

Mortality in Relation to Age and Causes (Tables XV., XXIV. and XXV.)

Infant Mortality: This is dealt with in detail in the section of this Report relating to Maternity and Child Welfare Services.

Mortality at Pre-School Age-Period (1 to 5 years), excluding Infant Period: The number of deaths at this age-period was 80, equivalent to a death-rate of 6.8 per 1,000 of the population at this age, as compared with an average of 8.0 in the preceding five years.

Mortality at School Age-Period (5-15 years): The deaths at this age-period amounted to 63 or 2.1 per 1,000 of population at this age, as against 1.7 in the preceding quinquennium. The deaths from scarlet fever and diphtheria were above the average at this age-period.

Mortality at Adolescent Age-Period (15 to 25 years): The deaths at this age-period were 63 or 2.0 per 1,000 of the population, as against an average rate of 2.3 in the preceding five years.

Mortality at Early-Mature Age-Period (25 to 45 years): The number of deaths at this age-period was 202, giving a rate of 4.1 per 1,000 of the population. The rate for the preceding quinquennium was 4.6.

Mortality at Late-Mature Age-Period (45 to 65 years): The deaths amounted to 513, with a rate of 15.0 per 1,000 of the population at this period, as compared with an average rate of 15.8 for the preceding quinquennium.

Mortality at Post-Mature Age-Period (65 years and upwards): The deaths amounted to 1009, with an equivalent rate of 80.4 per 1,000 of the population, as compared with an average rate of 85.1 for the 1929-33 quinquennium.

Mortality at All Ages: The death-rate from all causes has already been referred to.

The percentage fall in the death-rate from the decade of 1861-70 up to the end of 1934 is for each age-period as follows - 69 for the pre-school (including the infant) period; 72 for the school period; 78 for the adolescent period; 68 for the early-mature period; 36 for the late-mature period; and 15 for the post-mature period.

During 1934, the diseases responsible for the largest number of deaths were as follows:- Diseases of the circulatory system, 479 deaths; diseases of the nervous system, 328 (including 272 due to cerebral haemorrhage); malignant diseases, 278; respiratory diseases, 239; digestive diseases, 119; tuberculosis diseases, 111 (including 90 from pulmonary tuberculosis); and zymotic diseases, 104.

VARIATIONS IN MORTALITY FROM SELECTED CAUSES SINCE 1856.

The variations in the mortality from selected causes at all ages since the year 1856 - the second year of civil registration - can be conveniently followed in Table I. (p. 18).

Infectious Diseases: These, including tuberculosis, are dealt with in greater detail in the part of the Report devoted specially to Infectious Diseases.

Cancer and other Malignant Diseases: The cancer death-rate was 160 per 100,000 of the population in 1934, as compared with a rate of 155 in 1933. During the 1929-33 quinquennium, the average rate was 154.

Pneumonia: The death-rate from pneumonia was 83 per 100,000 of the population, as against an average of 108 during the 1929-33 quinquennium.

Bronchitis gave a death-rate of 41 per 100,000 of the population, as compared with an average of 65 for the preceding quinquennium.

Diseases of the Digestive System: In 1934, the death-rate was 69 per 100,000, as against an average of 73 in the 1929-33 quinquennium.

Diseases of the Circulatory System: The death-rate from these diseases was 277 per 100,000, as compared with an average of 270 for the preceding quinquennium.

TABLE XXIII. - ABERDEEN - MARRIAGE, BIRTH and DEATH RATES - 1856-1934
(Per 1,000 of Population.)

Year.	Population.	Marriages		Births*			Deaths*			Excess of Birth-rate over Death-rate.
		Number	Rate per 1000 of Population.	Number	Rate per 1000 of Population.	Illegit. Births per 100 Total Births.	Number	Rate per 1000 of Population.	Average Age at Death.	
1934	173,215	1,685	9.7	3,071	17.7	7.0	2,165	12.5	52.5	5.2
1933	172,036	1,524	8.9	3,019	17.6	6.3	2,240	13.0	52.1	4.6
1932	170,562	1,467	8.6	3,188	18.7	8.0	2,293	13.4	51.2	5.3
1931	168,603	1,519	9.0	3,231	19.2	7.8	2,346	13.9	53.0	5.3
1930	167,718	1,557	9.3	3,303	19.7	8.7	2,083	12.4	50.0	7.3
1929	166,833	1,558	9.3	3,112	18.7	9.0	2,422	14.5	50.3	4.2
Mean of 1929-33	169,151	1,525	9.0	3,171	18.8	8.0	2,277	13.4	51.3	5.4
1928	165,952	1,531	9.2	3,314	19.9	8.8	2,237	13.5	48.2	6.4
1927	165,075	1,502	9.1	3,182	19.3	7.5	2,180	13.2	49.1	6.1
1926	164,204	1,403	8.5	3,406	20.7	7.0	2,115	12.9	48.0	7.8
1925	163,337	1,519	9.3	3,390	20.8	7.4	2,170	13.3	46.5	7.5
1924	162,475	1,459	9.0	3,437	21.2	7.2	2,302	14.2	44.7	7.0
Mean of 1924-28	164,209	1,483	9.0	3,346	20.4	7.6	2,201	13.4	47.3	7.0
1921-25	161,622	1,582	9.8	3,763	23.3	8.2	2,303	14.3	44.4	9.0
1916-20	161,568	1,754	10.9	3,479	21.5	10.6	2,439	15.1	41.7	6.5
1911-15	164,324	1,489	9.1	3,959	24.1	10.2	2,752	16.8	38.1	7.4
1906-10	163,620	1,360	8.3	4,505	27.5	9.7	2,512	15.4	37.6	12.2
1901- 5	158,082	1,428	9.0	4,872	30.8	8.5	2,763	17.5	34.9	13.3
1896-1900	145,740	1,356	9.3	4,636	31.8	8.3	2,644	18.1	33.3	13.7
1891- 5	131,627	1,099	8.4	4,114	31.3	9.8	2,539	19.3	32.9	12.0
1886-90	117,587	911	7.8	3,827	32.5	10.4	2,370	20.2	...	12.3
1881- 5	108,959	848	7.8	3,712	34.1	10.6	2,159	19.8	...	14.3
1876-80	100,419	788	7.9	3,480	34.7	10.9	2,100	20.9	...	13.8
1871- 5	91,941	705	7.7	3,169	34.5	12.1	2,063	22.4	...	12.1
1866-70	84,234	684	8.1	3,010	35.7	12.9	1,978	23.5	...	12.2
1861-65	77,040	624	8.1	2,663	34.6	...	1,915	24.9	...	9.7
1856-60	73,453	524	7.1	2,397	32.6	...	1,772	24.1	...	8.5

* Corrected for transferred births for 1911 and subsequent years.

* Corrected for transferred deaths for 1904 and subsequent years.

TABLE XXIV. - ABERDEEN - MORTALITY FROM ALL CAUSES AT VARIOUS AGE-PERIODS[x]

(per 1,000 of population at each age)

Year.	Infantile Mortality. Deaths of Infants under 1 year per 1,000 Births.	Age Period.						All Ages.
		0-5 years	5-15 years	15-25 years	25-45 years	45-65 years	65 years and upwards	
1934	77	21.3	2.1	2.0	4.1	15.0	80.4	12.5
1933	79	22.5	1.6	2.3	4.9	15.4	82.1	13.0
1932	93	27.0	1.5	1.8	4.9	16.1	81.6	13.4
1931	90	25.0	1.5	2.7	4.4	15.6	92.0	13.9
1930	80	24.2	2.0	1.9	4.1	15.4	76.0	12.4
1929	95	28.4	1.8	2.9	4.6	16.7	94.0	14.5
Mean of 1929-33	87	25.4	1.7	2.3	4.6	15.8	85.1	13.4
1928	94	31.5	1.8	2.4	4.8	15.0	82.2	13.5
1927	105	30.2	1.9	1.7	4.1	15.7	83.7	13.2
1926	96	30.0	2.2	2.4	4.3	14.8	79.8	12.9
1925	109	35.4	1.7	2.3	5.5	13.6	80.3	13.3
1924	122	43.6	1.5	2.6	4.6	14.6	84.5	14.2
Mean of 1924-28	105	34.1	1.8	2.3	4.7	14.7	82.1	13.4
1921-25	115	42.2	1.8	2.8	5.3	15.5	82.3	14.2
1916-20	127	41.0	2.9	4.0	6.8	17.4	82.8	15.1
1911-15	143	49.7	4.0	4.1	6.7	20.0	86.5	16.8
1906-10	128	42.5	2.9	3.5	7.0	19.5	84.2	15.4
1901-05	143	52.2	3.1	4.6	7.4	21.3	83.3	17.1
1896-1900	144	54.2	3.4	5.0	9.2	22.2	81.6	18.1
1891-95	147	57.5	4.5	5.8	9.3	22.7	86.5	19.3
1886-90	140	52.9	4.8	7.0	10.5	22.9	88.1	20.2
1881-85	126	50.9	5.4	6.4	10.1	23.8	86.3	19.8
1876-1880	129	53.1	6.2	7.7	11.3	22.1	86.6	20.9
1871-75	133	57.5	7.7	8.2	12.0	22.6	91.5	22.4
1866-1870	133	68.0	7.2	8.9	12.4	22.2	91.2	23.5
1861-65	130	68.9	8.1	10.5	13.4	24.7	98.7	24.9
1856-1860	126	67.8	9.3	9.8	12.6	21.8	97.5	24.1

[x] Corrected for transferred deaths in 1904 and subsequent years.

TABLE XXV. - ABERDEEN - MORTALITY AT VARIOUS AGE-PERIODS FROM VARIOUS CAUSES.
(Corrected for Transferred Deaths)

Age.	All Causes.	Zymotic Diseases.			Tuberculous Diseases		Respiratory Diseases.			Diseases of Circulatory System.	Diseases of Gen.-Urinary System.	Nervous Diseases.			Dis. of Digestive Sys. inc. Diarrhoea.	Malignant Diseases.	Developmental Dis. (exc. old age).	Accident and Violence.	Debility, Atrophy, Inanition		Miscellaneous.
		Ordinary	Venereal.	Septic.	Phthisis.	Other Tuberculous	Pneumonia.	Bronchitis.	Other Respiratory.			Cerebral Haem. etc.	Convulsions.	Other Nervous.					Under Age of 1 year.	Above Age of 65 years.	
							A. - Number of Deaths - Year 1934.														
Under 1 year.	235	10	0	0	1	1	40	9	0	0	2	1	10	2	17	1	85	3	32	-	21
1- 5 years.	80	29	0	1	1	6	14	1	0	0	1	0	1	2	13	1	0	7	-	-	3
5-15 "	63	22	0	3	1	3	3	1	1	4	2	0	0	4	5	0	0	7	-	-	7
15-25 "	63	2	0	1	8	3	6	0	2	5	5	0	0	6	3	4	2	13	-	-	3
25-45 "	202	5	0	5	42	3	23	3	3	18	8	2	0	10	13	25	0	23	-	-	20
45-65 "	513	7	3	4	32	1	20	14	9	121	28	63	0	12	34	115	0	31	-	-	19
65 + "	1,009	4	1	7	5	4	38	43	9	331	65	206	0	9	34	132	0	23	-	67	31
All Ages.	2,165	79	4	21	90	21	144	71	24	479	111	272	11	45	119	278	87	107	32	67	104
1934.							B. - Death-Rate per 100,000.														
All Ages.	1,250	45	2	12	52	12	83	41	14	277	64	156	7	26	69	160	50	62	...	...	60
Average 1929-1933. All Ages.	1,346	56	4	10	55	21	108	65	20	270	59	174	7	29	73	154	50	64	...	...	66